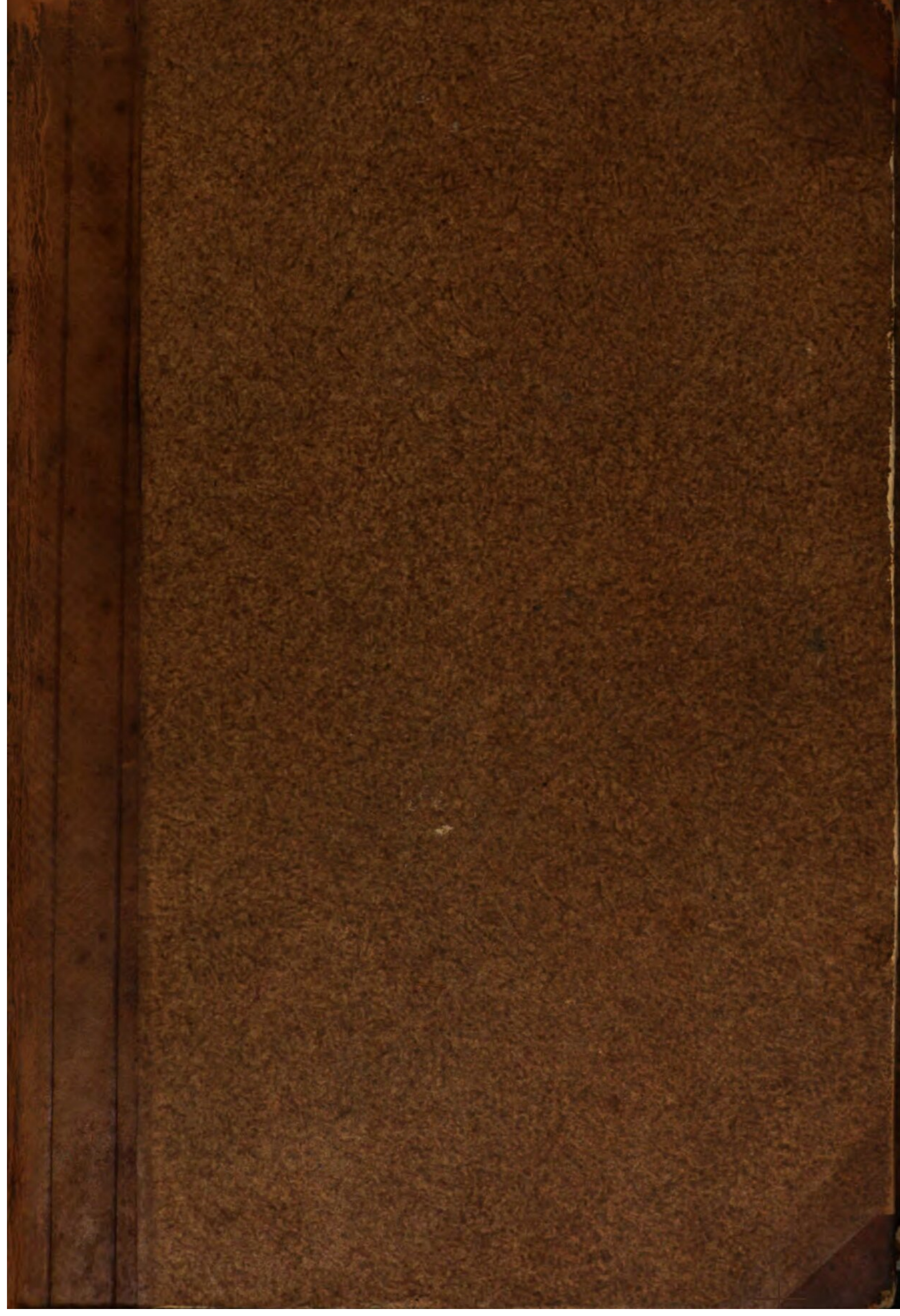




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Bentham

LABIATARUM

GENERA ET SPECIES

A DESCRIPTION

THE GENERA AND SPECIES OF LABIATAE

IN THE ORDER LABIATAE

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LABIATARUM

GENERA ET SPECIES:

OR,

A DESCRIPTION

OF

THE GENERA AND SPECIES OF PLANTS

OF THE

ORDER LABIATÆ;

WITH THEIR

GENERAL HISTORY, CHARACTERS, AFFINITIES,
AND GEOGRAPHICAL DISTRIBUTION.

By GEORGE BENTHAM, Esq., F.L.S.

LONDON:

JAMES RIDGWAY AND SONS, PICCADILLY.

1832—1836.

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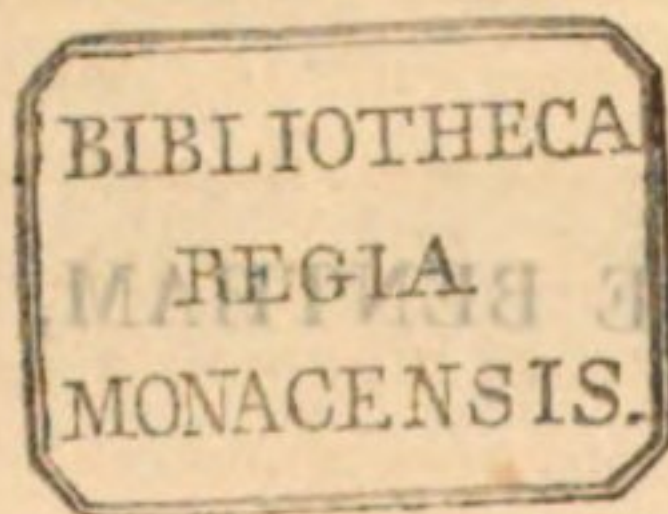
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PRINTED BY JAMES MOYES,
Castle Street, Leicester Square.

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GENERAL HISTORY, CHARACTERS, AFFINITIES,
AND GEOGRAPHICAL DISTRIBUTION.



BY GEORGE BENTHAM, Esq., F.R.S.

LONDON:

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1823-1830

PREFACE.

HAVING at length completed the task I first undertook, above six years since, of rearranging and describing the intricate and extensive order of *Labiatae*, I have now the pleasing duty of offering my acknowledgements to those numerous friends and correspondents, without whose kind and liberal assistance I should never have been able to see through the confusion which has ever prevailed in the distribution and synonymy of the whole series.

In the first place, to my friends Dr. LINDLEY and Dr. HOOKER I am indebted for the first encouragement by which they induced me to undertake the Work, for the most unre-served use they have at all times allowed me to make of their extensive and valuable herbaria, as well as for the numerous suggestions and observations which they have on every occasion most liberally offered.

From Dr. WALLICH, Dr. WIGHT, and Mr. ROYLE, I have not only received for my own herbarium sets, as complete as was possible, of their rich collections of Indian *Labiatae*, but they have each of them trusted me with the whole of their specimens previous to distribution, as well as with the drawings and MS. descriptions made from the living plants, giving an opportunity, in the case of the greater number of East Indian species, of comparing very numerous specimens in a variety of states, and from a variety of stations, thereby affording an unusual mass of data for ascertaining the real value of the distinctive characters.

The COUNCIL of the HORTICULTURAL SOCIETY of London, in confiding to me the distribution of the duplicate specimens received from their different horticultural collectors, expressly authorised me to select a set for myself, amongst which are many valuable *Labiatae*, especially from North California, Chili, and tropical Africa.

From Mr. LAMBERT, I have not only met with the greatest

urbanity, and every facility in consulting his extensive Siberian, Oriental, North American, and other collections, but he lent me, for examination, the whole of the Labiatae from Ruiz and Pavon's collections, including those gathered in New Spain and Mexico by Mocino and Sessé, and in Guayaquil by Tafalla.

Mr. BROWN has at all times shewn me the greatest attention in facilitating the inspection of the rich stores of the Banksian herbarium, in looking out for me such portions as had not yet been laid in; and to the same eminent Botanist I am also indebted for various important hints respecting obscure points of synonymy and structure. From Mr. BENNETT, the Assistant Conservator of the same herbarium, I have met with the same readiness on each of the repeated visits I have paid to the British Museum.

From Mr. DON, I have received much assistance, as well in the consulting the library and collections of the Linnæan Society and of Mr. Lambert, as in a number of hints and observations respecting the synonymy of Labiatae.

Mr. BURCHELL, in sending to me for examination his South African Labiatae, kindly presented to me as complete a set as he was able for my own herbarium.

To Mr. J. G. GRAHAM, I am indebted for a fine set of Mexican plants, including many valuable *Salviae*, which were dried by an Indian servant, who accompanied him in his inspection of the Tlalpuxahua mines.

Mr. F. H. TALBOT has enriched my collection with some scarce Mediterranean, and chiefly Corfu, species.

Mr. ALLAN CUNNINGHAM of Kew, obligingly transmitted to me, for examination, a complete set of his Australian Labiatae, together with important MS. notes made on the living specimens.

From Dr. BOOTT, I have received several scarce North American species, as well as notes and observations on several of them.

Mr. PARKER of Liverpool, transmitted to me the whole of his West Indian and other Labiatae.

The late Dr. GILLIES of Edinburgh, shortly before his lamented death, had presented me with a complete set of his South American Labiatae.

To Mr. ARNOTT of Arlary, I have to offer my thanks not only as an important contributor to my herbarium, but also for great attention in transmitting to me sets of Indian Labiatae received by Dr. Wight since he first lent me his collections for inspection.

To Continental Botanists in general I am not less indebted than to English ones, for the liberal manner in which they have, with scarcely any exception, whether acquainted or not, immediately complied with my applications for the loan of particular sets of Labiatae, and for the flattering reception I have met with from them, and the readiness with which they have opened their stores for my use and inspection during the several visits I have paid to the Continent since I first commenced the study of the order; that is to say, in 1830, to Hamburgh and Berlin; in 1831, to Paris, Geneva, Avignon, and Montpellier; in 1832, to Hamburgh, Copenhagen, Leipzig, Dresden, Prague, Vienna, and Munich; in 1833, to Paris and Montpellier; and, in 1834, to Bonn, Frankfort, Geneva, Pavia, and Turin; in all of which towns I spent more or less time in the examination of the Labiatae in the principal public and private herbaria there deposited.

But I must also beg to express the special obligations I am under to the following gentlemen:

To M. AUGUSTE ST. HILAIRE, for the handsome manner in which he sent over to me the whole of his Brazilian Labiatae, with his MS. notes and observations; thus affording me the same advantages in respect of variety of station, number, and beauty of specimens, &c. which I had enjoyed in respect to East Indian species.

To BARON BENJAMIN DELESSERT, the liberal proprietor of one of the most extensive private herbaria, including either the entire collections, or large portions of those of Tournefort, Ventenat, Patrin, Palisot de Beauvois, Perrottet, Bertero, &c.; to M. GUILLEMIN, Conservator of the same herbarium; to the late venerable DESFONTAINES; and Messrs. ADRIEN DE JUSSIEU and JULES DE CAMBESSEDES, Administrators, or connected with the administration of the vast herbarium of the Museum of the Jardin du Roi, and proprietors of rich collections of their own; to M. DECAISNE, Assistant Botanist in the same establishment,—

for assistance in the examination of their several herbaria, and for the communication of specimens; and to the Administration of the Museum, and Messrs. Adrien de Jussieu and Cambes-sedes in particular, for a fine series of the Labiatae collected by the late unfortunate Jacquemont in North India, and the loan of those species of which there existed but single specimens.

To M. REQUIEN of Avignon, for a large number of specimens selected from his herbarium—one of the richest in European plants.

To M. DELILE of Montpellier, for several Egyptian species, as well as for specimens from the rich botanical garden of that town.

To Professor DE CANDOLLE of Geneva, for the liberality with which he opened his herbarium—one of the finest now in existence, confiding to me, without reserve, the whole of his Labiatae during a week that I spent in studying it in 1831 and near three weeks in 1834, and allowing me to select, for my own herbarium, such duplicates as could be spared.

To Professor MORIS of Turin, for a valuable set of Sardinian plants, including several scarce Labiatae.

To Professor MORETTI of Pavia, for many rare species, chiefly from the herbarium of the late M. Bosc of Paris.

To M. GUSSONE of Naples, for numerous Sicilian and South Italian specimens.

To Professor LEHMANN of Hamburgh, for the pains he took in procuring me the means of consulting a portion of Vahl's herbarium in 1830, and for several valuable communications of South African as well as other species, and for the inspection of Colsmann's and other herbaria in his own keeping or possession. To Messrs. BOOTH, for specimens of German garden species in their collections. From M. ECKLON, I have also received a complete set of his South African Labiatae since the publication of my Supplement; I have, however, included them in my geographical table, and described them in a separate paper, which I have transmitted to that gentleman for publication.

To Messrs. SCHLECHTENDAL and VON CHAMISSE of Berlin, for assistance in consulting the Royal Berlin herbarium, from the Administration of which I purchased a complete set of

Sello's South Brazilian Labiatae; and to M. VON CHAMISSE, especially, for a series of Labiatae, collected by him in his voyage round the world. To Professor KUNTH, for the inspection of his own herbarium. To M. EHRENBURG, for the examination of some of his Egyptian Labiatae. To M. OTTO, for the communication of several species of Sello's, and also of a number of garden specimens.

To Professor KUNZE of Leipzig, for several German species, as well as several of Pöppig's South American Labiatae.

To Count STERNBERG of Prague, the liberal patron not only of Bohemian Naturalists, but of the science in general, himself a distinguished Botanist; and Dr. PRESL, Conservator of his extensive herbarium, for valuable communications, chiefly of Hænke's American Labiatae.

To M. ENDLICHER of Vienna, Keeper of the Imperial Library, for the unreserved use of any portion of his herbarium, and the communication of many specimens. To the late Dr. POHL, for assistance in the examination and description of his Brazilian collections, deposited in the Imperial Brazilian Museum. To Baron VON JACQUIN, for specimens of cultivated Labiatae. To the late Dr. HOST, for a set of specimens of his *Menthae*, taken from the original plants in his garden.

To Dr. VON MARTIUS of Munich, for the unreserved use of his own herbarium; and to him and the Administration of the Royal Museum of Munich, for the loan and transmission to this country of the whole of his Brazilian Labiatae. To Professor ZUCCARINI and Dr. SCHULTES, for the like unlimited use of their herbaria; and to the former gentleman for a rich set of Grecian Labiatae.

To Dr. RÜPPELL and Dr. FRESENIUS of Frankfort, for the inspection of the Labiatae collected by Dr. Rüppell in Egypt and Abyssinia.

To Professor HORNEMANN of Copenhagen, for assistance in studying the Labiatae contained in Vahl's and Schumacher's herbaria, in the possession of the Royal University of Copenhagen.

To Professor AGARDH of Lund, for several valuable hints on structure, communicated to me during the scientific meeting at Hamburgh, in 1830.

To M. PRESCOTT of Petersburg, for an extensive set of South Russian and Caucasian plants, with particular attention to the Labiatae; and to M. AD. BUNGE and C. A. MEYER, who, without previous acquaintance, sent me over splendid specimens of their East Russian and Caucasico-Caspian species.

To Dr. TORREY of New York, for sets of North American Labiatae, both for examination, and for my own herbarium.

To the above list I would beg also to add, as liberal contributors to my herbarium—from whom, amongst other plants, I have received more or less Labiatae:—Dr. GRAHAM and Dr. GREVILLE of Edinburgh; Professor HENSLOW of Cambridge; Messrs. P. B. WEBB and BERTHELOT, the authors of the forthcoming description of the Canary Islands; Messrs. PROST of Mende, SERINGE of Lyons, AUDIBERT of Tarascon, BOUSCHET-DOUMENQ of Montpellier, XATARD of Prats-de-Mollo, CODER of Prades, and MARCHANT of St. B  at; Messrs. ALPHONSE DE CANDOLLE, PH. DUNANT, and the late M. MERCIER, of Geneva; Dr. FENZL of Vienna; Professor BESSER of Brody; Dr. VISIANI of Dalmatia; the late M. DE KLUSTINE of Moscow; and the late Rev. L. DE SCHWEINITZ of Bethlehem, in North America.

I have myself, also, long paid particular attention to the Labiatae during my herborisations in France, Germany, the Alps, the north of Italy, the Pyrenees, and Catalonia, as well as in selecting specimens for drying in the Botanical Gardens of Edinburgh, Glasgow, Chelsea, Paris, Lyons, Avignon, Toulon, Montpellier, Toulouse, Barcelona, Hamburgh, Berlin, Vienna, Munich, Geneva, Turin, &c. My herbarium contains also the purchased collections of SALZMANN, from Tangiers and from Bahia; of BOV  , from Egypt and Syria; of the German UNIO ITINERARI   for the first four or five years; of CUMING, BRIDGES, and MATHEWS, from South America; and of DRUMMOND, from North America.

Although I have thus had the opportunity of examining by far the greater number of known Labiatae, yet in some cases I have been able to do so more completely than others, and to establish the synonyms much more satisfactorily where I have had the specimens before me at the same time (as, for example, the several East Indian collections, St. Hilaire's, Martius's, and Sello's Brazilian collections, &c.), than where it has been only

from descriptions made at different times, and from recollection, that I have been able to establish the comparison (as, for example, Pohl's Brazilian, Humboldt's American plants, &c.) In order, therefore, that the reader may, in some measure, be able to judge of the comparative weight to be attached to my different approximations, I have always distinguished by the letters *h. s.* the species of which I possess specimens in my own herbarium, and *v. s.* those which I have only seen in other collections, adding the source whence I received the plant, or the herbarium in which I had seen it in all cases where it appeared to me useful so to do; and adding the letters *sp.* or *c.* according to whether the specimen seen was spontaneous or cultivated, and substituting *v.* for *s.* where I had examined the plant alive.

I have also made use of the note of exclamation in the manner recommended by De Candolle. If put after the name of a place, it signifies that I have seen a specimen from that place; if after the name of a person following that of a place, it is meant that I have seen a specimen labelled by the person in question as coming from the station in question; if after the name of an author following that of a species, that I have seen what I consider to be an authentic specimen. This is, however, more frequently liable to error than is generally supposed, not only from accidental misplacing of labels, but also from the carelessness of authors, who, after they have described one specimen, subsequently name others in their own, as well as other herbaria, without sufficient examination of their identity with the one they had originally in view. Thus it is that many specimens, even in Linnæus's herbarium, cannot be considered as absolute authority for his species — (see, for example, *Salvia clandestina*) — and in other cases, as, for example, in that of specimens named by Tenore, there are very different plants under the same name in different herbaria; and this may have frequently been the cause of my mistaking several of them, as I have ascertained to have been the case with *Mentha pyramidalis*.

Wherever I have not seen a specimen which answers satisfactorily to an author's description, I have invariably quoted his words in inverted commas, never altering them

to suit my phraseology, but merely shortening them when too long, and omitting unimportant points; such, for example, as *folia opposita*, *corolla monopetala*, &c., which must be in all Labiatae. Whatever description is not in inverted commas has been made from the specimens before me, and I am alone answerable for.

The diagnoses of the species, or specific characters, will perhaps be found, in many instances, too long. This is owing partly to the difficulty of distinguishing the species in numerous and intricate genera, which induced me to insert as many points of comparison as afforded any tangible differences, partly to my having, in the case of every species in which I have verified the sectional character, repeated it in the specific diagnosis as it there appeared. This certainly is not necessary in a general work; but is, perhaps, not sufficiently attended to in isolated descriptions of new species, which are but too often referred to a section from their general appearance without verifying its character.

Having framed all the diagnoses myself, without reference to those of other authors, I have endeavoured to preserve uniformity of phraseology; so that when, in two species of the same genus, different words are used, although nearly synonymous, it has been because some difference has been observed in the plants described. In the punctuation I have followed that of De Candolle in preference to that recommended by the first botanists of this country; for it has appeared to me that the use of the colon, so very different from that which it receives in ordinary composition, rather tends to confusion than to elucidation.

With regard to the order in which the several characters of a species are given, I have, for convenience of reference, followed the same course in the diagnoses as in the description, beginning with the root and ending with the seed. Some authors in the diagnosis follow rather the order of importance and generality of the characters, which has, perhaps, several advantages in facilitating the determination of species, but in complicated genera is very difficult to adopt without falling into confusion, and frequently occasioning ambiguity; and the same object may, perhaps, be better answered by an Analysis, or

Conspectus Specierum, prefixed to each genus. This I have endeavoured to do, both as a key to the species and as a test of the validity of species; but there is no portion of the Work in which I have met with greater difficulties, than in arranging these Analyses of the more numerous genera.

The synonymy has occasioned considerable labour, and might have been much extended, had still more time been bestowed upon it; but in order not to delay or to lengthen the Work too much, I have omitted nearly all the old synonyms previous to the Linnæan nomenclature, and since that time, those authors only are quoted who first established a name, together with such figures as are tolerably characteristic, amongst which are included those of Rheede, Rumphius, Burmann, Sloane, and some other authors before Linnæus, as their representations in general give a good idea of the plants. I had intended adding those of Plukenet, Morison, and Barrelier, but in so many instances I found that their figures, those of Plukenet in particular, rather led one astray than assisted in the determination of a plant, that I did not think it worth the labour of investigating them, and have only quoted them in a few instances where they have been the original authority for Linnæan species.

The use I have made of the labours of Mirbel, De Gingins, Rœper, and of many other published works, both general and special, will readily be seen; but in nearly every instance in the generalia, as in detailed descriptions, it has been my rule first to examine for myself and describe what I saw, and then to refer to the observations of others, and where they differed from mine, to re-examine; and this from a persuasion that one is tempted to search with less care when a previous idea, often erroneous, of what is to be found, has been formed.

As to the stations or habitats, I have first stated them as generally and briefly as possible, and then, in the case of plants not common over the whole of the region so designated, enumerated such special localities as I have been able to collect.

Having thus generally stated the plan I have followed, I have only to add, that, convinced of the errors which must necessarily occur in a work of this kind, whatever care be

bestowed upon it, I shall thankfully receive any corrections or suggestions that may occur, and consider them in the revision of the Order which I have undertaken for Professor De Candolle's *Prodromus*.

December 1835.

GENERALIA.

LABIATÆ.

Verticillatæ. *Linn. Ord. Nat. n. 42.*

Labiatae. *Juss. Gen. p. 110. Brown Prod. 499. Mirb. Ann. Mus. 15. 213.*
Lindl. Introd. Nat. Syst. 239. Barth. Ord. Nat. 180.

DICOTYLEDONES. Calyx inferus, gamosepalus, subpentamerus. Corolla hypogyna, gamopetala, pentamera, irregularis. Andrœcium simplex, epipetalum, stamine supremo abortiente. Gynœcium abortione dimerum. Ovarium liberum, 4-lobum, lobis 1-ovulatis. Stylus basi simplex.

Calyx inferus, persistens, gamosepalus; nunc regularis, 5-dentatus, e sepalis constans 5, basi connatis, apice liberis, quinto supremo, 3-nerviis, nervo mediano cujuscunque sepalis validiori, marginalibus sæpius sepalorum duorum in uno coalitis, interdum in dentes accessorios excurrentibus (calyce tum 10-dentato), rarius liberis, interdum evanidis; nunc irregularis, obliquus, incurvus, vel dentibus (sepalorum parte libera) inæqualibus vel inter se vario modo coalitis, supremo interdum excluso squamiformi vel omnino abortiente. *Corolla* gamopetala, hypogyna, decidua, irregularis, e petalis constans 5 cum sepalis alternantibus, supremis contractionibus, basi in tubum polymorphum coalitis, apice dilatatis in limbum 4-5-lobum subcampanulatum bilabiatum vel obliquum, æstivatione imbricata, nempe lacinia infima intima, lateralibus suprapositis, supremis extimis. *Stamina* tubo corollæ inserta, lobis corollæ alternantia, adscendentia erecta divaricata vel declinata; 2 inferiora constantia et sæpissime fertilia; 2 superiora nunc omnino abortiva vel sterilia, nunc perfecta, inferioribus breviora, subæqualia, vel longiora; supremum omnino abortivum, vel rarissime in floribus monstruosis extans. *Antheræ* normales biloculares, loculis basi connectivo insertis, parallelis vel apice divergentibus divaricatisve, rima longitudinali dehiscentibus, nunc discretis connectivo incrassato vel elongato filiformi remotis, nunc contiguis vel in unum coalitis, infimo nonnunquam, supremo rarius, casso vel abortiente (anthera tunc dimidiata). *Appendices* dentiformes, cornuformes, calcariformes vel penicilliformes, in generibus nonnullis, in filamentum connectivo vel valvulis sitæ. *Annulus* intra tubum corollæ dum exstat subter insertionem staminum, nunc fere completus e fasciculis pilorum vel squamarum 4 vel 5 staminibus alternis constat, nunc incompletus e fasciculis 2-3, sæpe omnino nullus. *Gynœcium* insidens in gynophorum crassum subcarnosum, nunc æquale disciforme vel apice auctum lobis 4 glandulæformibus lobis ovarii alternantibus æqualibus,

nunc obliquum vel lobo glandulæformi infimo maximo. Ovarium 4-lobum (vel bipartitum segmentis bilobis), ovulo in quoque lobo unico erecto. Stylus intra lobos et ad basin eorum insertus, post anthesin sæpissime deciduus, apice sæpius bifidus, laciniis subulatis vel rarius complanatis æqualibus vel supremo minore, rarissime integer apice subclavatus. Stigmata 2, in laciniis styli terminalia vel subterminalia, sæpius tenuia oculo nudo inconspicua, nunc capitata vel rarissime in unum coalita. *Fructus*: Achenia 4 vel abortione 1-3, in fundo calycis persistentis sita, pericarpio nunc tenui membranaceo, nunc duro incrassato vel carnosio. Semen erectum, albumine subnullo. Embryo erectum, profunde fissum, cotyledonibus rectis vel apice recurvis, axi radio florali sæpius contrario. Radicula recta, vel vix incurva.

Herbæ suffrutices fruticesve, nec arbores; rami oppositi vel verticillati sæpissime tetragoni. *Folia* opposita vel verticillata, exstipulata, integra vel divisa, reticulato-penninervia. *Inflorescentia* e cymis duabus axillaribus oppositis dichotomis unilateralibus centrifuge florentibus formata. Bracteæ ad dichotomias cymarum binæ oppositæ, in ramos solitariæ oppositifloræ. Cymæ heteromorphæ, scil. 1° normales laxæ dichotomæ, ramosæ, multifloræ, floribus secus ramos erectis unilateralibus ad axillas bractearum; 2° condensatæ ad apicem pedunculi communis, et tunc flores *capitati* dicuntur: 3° condensatæ in fasciculis sessilibus binis oppositis pseudo-verticillum vel verticillastrum formantibus, bracteis interioribus sæpius abortientibus, exterioribus involucrum formantibus vel etiam abortivis: 4° ad florem unicum reductæ, et sic flores solitarii oppositi. Verticillastri (vel cymarum paria) nunc omnes axillares, nempe ad axillas foliorum caulinis conformium siti, nunc superiores vel omnes racemosi vel spicati, nempe ad apices ramorum dispositi, ad axillas foliorum bractæformium. In speciebus paucissimis spicatis racemosisve solitariifloris, flores alterni vel sparsi nec oppositi.

Folia et calyces in pluribus, et etiam caules et corollæ in nonnullis, glandulis parvis globosis oleo æthereo valde aromatico repletis oblecta. Plures amaræ in arte medica, vel aromaticæ ad usum culinarem, vel in distillatione adhibentur. Perpaucae radicibus mediocriter esculentis donatæ.

Ordo maxime naturalis, et facile circumscribendus, ab omnibus ovario 4-lobo differt præter Borragineas, et ab his corolla irregulari et stamine quinto deficiente. Genera perpauca ad Verbenaceas approximantur, ovario minus profunde bilobo, sed ab illis facillime distinguenda.

Labiatae per totum fere orbem terrarum dispersæ, nullibi tamen majori et specierum et individuorum copia excellunt quam in utriusque zonæ temperatæ borealis plagis calidioribus, et zonæ tropicæ montibus temperatis; in arcticis subnullæ, in summis alpinis perpaucae, nec in calidissimis æquinoctialibus numerosæ; cæterum in omnibus fere terrenis occurrunt, tam in herbosis umbrosis quam in aridis apertis numerosæ, in uliginosis paucae.

The order of LABIATÆ is one of the most natural and distinctly marked of all. The opposite leaves, monopetalous corolla, 2 or 4 stamina, and the free 4-lobed ovarium are characters so easily observed, and so constantly accompanying the general habit of the whole series, that, from the time of Linnæus to the present day, but two or three genera have been improperly associated with, or separated from, it. Its immediate affinities are, indeed, but few. The same 4-lobed ovarium is only found in *Borraginææ*; but here we have the fifth stamen constantly present and fertile, and the gyrate inflorescence, alternate leaves, and corolla, usually regular, produce so great a difference in the facies, that it is impossible in any case to confound the two orders. *Scrophularinææ*, and other tribes allied to it, are at once separated by their capsular fruit. The *Verbenacææ*, alone, having frequently the same inflorescence, and many of the characters of Labiatæ, approach near enough to occasion any hesitation in drawing the line of separation. The ovarium is slightly lobed in *Verbena*, and other neighbouring genera, and in *Cymaria*, and some *Teucris*, it is less lobed than in other Labiatæ, but yet the distance is considerable in this respect between the former and the two latter genera. Amongst the genera in other respects intermediate, *Cloanthes* has been instanced by Mr. Brown as having the habit of Labiatæ, with the characters of Verbenacææ; and *Hoslundia*, on the contrary, as being Verbenaceous in habit, with Labiate characters: to these instances may be added the close resemblance in all but the fruit between *Teucrium Betonica*, &c. and *Vitex ovata*, *trifolia*, &c.; but these examples present no real difficulty, and are very few when compared to the vast extent of both orders.

It is scarcely necessary to mention the slight general resemblance between some species of Labiatæ and some *Lythrarieæ*, *Rubiaceæ*, *Compositæ*, or other opposite-leaved herbaceous plants, as it could never occasion the slightest doubt in the mind of a Botanist, and it is useless attempting, by any general principles, to correct the blunders of a Sprengel, a Poiret, or other such compilers, who appear so frequently to have marshalled their genera and species under the guidance of mere chance.

The ROOTS of Labiatæ, so far as I am acquainted with them, present nothing remarkable; they are usually fibrous, and branched, assuming somewhat the form of a taproot in some Alpine *Nepeteæ*, and swelled into tubers in some species of *Plectranthus*, *Orthosiphon*, *Coleus*, *Phlomis*, *Nepeta*, *Scutellaria*, &c.

With regard to the STEM, the Labiatæ, whether annual or perennial, are usually herbaceous; sometimes growing into shrubs, but never appear to form trees: the young shoots are almost constantly quadrangular, and the branches opposite; or, if alternate, they

become so by the abortion of one branch of each pair, not by the separation of the two branches. They usually vary from procumbent to erect. Some *Scutellariæ* and *Stenogynes* are, to a certain degree, climbing. Among the unusual forms, one of the most remarkable is the articulate stem of *Dracocephalum fragile*.

The LEAVES are continuous with the stem (not articulated), opposite; and, although the pairs are unconnected by any membrane, yet the opposition is so constant, even in the floral leaves, that it is difficult to apply to them Schlechtendal's term of *pseudo-opposita*. The only exceptions in the whole family are:—1st, in regard to cauline leaves, the *Hyptis anomala*, in which the leaves of each pair are separated, so as to be alternate, with a flexuose stem; but in this case it is possible that all the specimens I saw were gathered from one abnormal or monstrous individual;—2d, in regard to floral leaves, the *Lavandula Burmanni* and the *Scutellariæ* of the section *Heteranthesia*, in which the upper ones are irregularly dispersed round the axis. But in these cases these leaves are very small and bractæform.

The leaves are usually herbaceous, with the principal veins pinnate. They acquire a coriaceous consistence in several *Hyptides*, and are somewhat fleshy in *Anisochilus carnosus*, and some other *Ocimoideæ*, but without ever thickening so as to efface the nerves. They are sometimes quite entire; at others toothed; and in *Lavandula*, some *Salviæ*, *Teucria*, &c., they are deeply divided, with the segments sometimes petiolulate, but never articulate so as to constitute a really pinnate leaf. In the *Pogostemon paniculatum*, there is a remarkable disparity in the size of the two leaves of each pair; in all other Labiatæ they are of nearly the same size.

The ordinary INFLORESCENCE consists of two opposite *cymes*, each arising from the axilla of a floral leaf, and divided into two simple or dichotomous branches; the flowers arise singly from the dichotomies, each borne on a pedicel of its own, and a bractea is placed under each branch at every dichotomy. Each pair of cymes forms a *verticillaster*, and the verticillasters are placed one above the other at the extremity of the branches in racemes, called by some Botanists *anthuræ*.

It is essential here to mark the difference between the raceme and the cyme, either of which may be developed at the axilla of a leaf. In the cyme, the central axis is at once terminated by a single flower, with only one pair of lateral buds; each of these (or, by abortion, one only), in their turn, is terminated by one flower, with a pair of buds, and so on. In the raceme, on the contrary, whilst a pair of lateral buds are forming cymes, the central axis is elongated and forms fresh pairs of buds, generally producing cymes to the top of the raceme. So that in all Labiatæ the flowers terminate the

branches of the cymes, but the cymes never really terminate the branches of the stem. Thus, in the spicate *Mentha*, where the developement of the stem is stopped, and it is apparently terminated by a verticillaster, it is in fact an undeveloped central bud between two lateral cymes, that terminates the stem.

As a consequence of this disposition the developement of the raceme is centripetal (the lower verticillasters flowering first), and that of the cymes centrifugal,—the flower first developed being that which arises in the dichotomy of the two primary branches, then the first flower on each branch, and so on.

If the above be considered the normal inflorescence of the order, the following are the several modifications which may be observed:—

In the most developed form the common peduncle of each cyme is much lengthened, the branches and the pedicels are very numerous and long, so as to give each cyme the appearance of a panicle (several *Plectranthi*, *Colei*, *Hyptides*, *Amethystea*, some *Teucria*, &c.), and in some of these species the cymes are numerous and the racemes branched so as to form a compound panicle, in which occasionally the flower from some of the dichotomies of a cyme is replaced by a peduncle bearing several flowers, so as to blend the cyme with the raceme, as in the *Plectranthus amethystoides*; but this occurrence is rare.

It much more frequently happens that one or more of the component parts of the inflorescence are more or less contracted or reduced.

The contraction of the pedicel alone, rendering the flower sessile, does not of itself alter much the general inflorescence, and occurs frequently. But the branches of the cyme, together with the pedicels, are often so shortened as to transform the cyme into a globose or hemispherical capitulum, with the bractes arranged outside into a species of involucre (*Hyptis*, Sections V. to XI.) If the common peduncle is at the same time so much shortened as that the cymes appear sessile, each pair of cymes assumes the appearance of a dense verticil, which gave rise to the name *verticillaster* coined to distinguish it from the true verticil. Most species of *Stachys*, *Phlomis*, &c., are examples of this kind of inflorescence.

The contraction occasionally takes place in the common peduncle and in the pedicels, whilst the two principal branches of each cyme remain diverging at right angles from each other, and simple, but many-flowered and elongated; so that the flowers of each verticillaster appear to be arranged upon 4 verticillate branches, disposed round the stem in the form of a cross.—(*Coleus atropurpureus*, and some others of the same section.)

On the other hand, in the *Hyptides* of the section *Umbellaria*, the common peduncles and pedicels remain long, and the branches of the cyme are alone contracted, so as to give each cyme the appearance of a pedunculated umbell.

The raceme is occasionally contracted into a densely imbricate spike.—(Several *Dysophyllæ*, *Elsholtziæ*, &c.)

In the *Nepetæ oxyneptæ*, the raceme assumes nearly the form of a corymb.

In all the above cases, the raceme is supposed to consist of several verticillasters; each verticillaster of two cymes, each cyme of two multiflorous branches; but frequent reductions in these numbers alter essentially the character of the inflorescence.

It is very seldom that, after the first ramification, the branches of the cyme continue dichotomous; but one branch of each dichotomy, together with its bract, is abortive, the central flowers remaining arranged unilaterally, each opposite to a single bract.

Another of the most common reductions is that of each branch of the cyme to a single flower, which, with the flower arising from the dichotomy, gives three flowers to each cyme; and (as is usually the case) when these cymes are sessile they form together a 6-flowered verticillaster, as in a large number of *Salviæ*, *Ocima*, &c.; the flowers themselves being sometimes sessile, but often pedicellate, and not unfrequently pendent or reflexed, especially at their maturity.

Sometimes the whole cyme is reduced to a single flower. The raceme then consists of solitary opposite flowers, and is occasionally contracted into a decussate spike. These single flowers may be either sessile, or peduncled, pedicellate, or both peduncled and pedicellate, according to whether the peduncle or the pedicel, or both, be elongated,—a point to be determined by the situation of the bracteæ, which are either immediately under the calyx, close to the stem, or at some distance from either.

It is amongst these solitary flowers, or 1-flowered cymes, that are to be found those rare instances of departure from opposition in the cymes, which have been already adverted to, in speaking of leaves, as being observed in *Lavandula Burmanni*, and the *Scutellariæ* of the section *Heteranthesia*. The arrangement of the flowers is in these plants very irregular, excepting sometimes in the lower part of the raceme, where the flowers are nearly or even quite opposite. In no other species have I ever observed any departure from the opposite state, nor any considerable inequality in the two cymes of a verticillaster.

The inflorescence is often very much altered in appearance, although but little in reality, by the size and general appearance of the floral leaves and bractes.*

When nearly all the floral leaves differ little in size and shape from the cauline ones, it is usual to designate the inflorescence as *axillary*, in opposition to *racemose* or *spicate*, when the majority of floral leaves have the appearance of bractes. But this is perhaps an inaccurate nomenclature, and not so convenient practically as would appear at first sight. The cases, indeed, are very numerous where a more than ordinary richness in the soil, shade, or many other acci-

* It should be borne in mind that the floral leaves are always those situated at the base of a verticillaster; the bractes, at the base of the branches of a cyme, or of the pedicel. Some people call the former simply *leaves* when they resemble the other stem leaves; *bractes*, when they differ from them, and call the bractes *bracteolæ*. But as the stem leaves nearly always run gradually into floral leaves, and the distinction between the floral leaves and bractes as above given is positive, I thought it better always to designate them by the same name, whatever be their size and shape.

dental circumstances, will enlarge the floral leaves, and make them approach nearer to the cauline ones in shape.

The floral leaves are opposite and decussate, like the cauline ones; and where the raceme is condensed into a spike, and the floral leaves are longer than the calyx, this decussation is very apparent.

They are often closely imbricate in spicate racemes. In some *Elsholtziæ*, particularly *E. strobilifera*, they are connected together into a sort of cup.

In some instances they are very small; but they seldom, if ever, disappear so totally as the bracteæ.

Where the raceme is secund, the floral leaves are sometimes unilateral also, being both turned to the side opposite that of the flowers.

The bractes vary much in size and form; they are often entirely abortive, generally smaller and narrower than even the upper floral leaves; sometimes exactly resembling them, but always different from the cauline leaves.

Where the bractes are not all abortive, those most constantly present are the lower pair, whether their axillary buds be developed or not (in the case of uniflorous peduncles); but, in the succeeding ramifications, whenever one of the branches of each pair is abortive, it usually happens that its bract is so also; and the remaining bract appears opposed to the pedicel.

It follows, that when the cyme is contracted into a head, the bractes form an involucre outside.

This disposition of the bractes opposite the pedicels is very evident in *Elsholtzia cristata*.

The normal CALYX of Labiatae consists of sepals, connected at the base, and usually beyond the middle, into a tube, but free at the top, so as to assume the form of a monosepalous 5-toothed calyx; the odd sepal placed next the axis of the stem is called the upper one, the two next to it the lateral ones, and the two remaining the lower ones. Each sepal has three principal nerves, the central one usually terminating in a point, towards which the lateral ones converge.

When these nerves are all prominent and free, the calyx is 15-nerved; but it often happens that the lateral ones of two adjoining sepals are combined into one, so as to reduce the total number to ten, and sometimes the lateral ones are scarcely perceptible at all, and the calyx becomes 5-nerved.

The lateral nerves of adjoining sepals when combined into one are sometimes produced beyond the margin into accessory teeth, making the total number of teeth to be ten, as in *Leucas*.

In most *Menthoideæ*, in several *Stachydeæ*, *Ajugoideæ*, &c. the calyx is regular, *i. e.* the 5 teeth are nearly equal in size, equally cleft, and equally divergent; but there is in the whole order a very great tendency to irregularity, more or less observable sometimes in whole genera, at others in sections, in single species, or even in varieties only.

This irregularity takes place in various ways, of which the following are the most remarkable :

One of those, which, when it occurs, is one of the most constant, and therefore the most important, is where the lower sepals are more developed, and less intimately combined, than the upper ones ; that is to say, when the adjoining lateral nerves of the three upper sepals are combined into one, whilst in the lower ones they remain distinct — thus forming a 13-nerved calyx ; one nerve in the centre of each sepal, one between the central nerve of the upper sepal and that of each of the lateral ones, and two between the central one of each lateral sepal and that of its adjoining lower one, as well as between the central nerves of the two lower sepals. This is observable in nearly the whole of the *Melissineæ*, and this tendency towards a greater developement in the lower sepals may be traced in the greater part of the order.*

In the *Nepeteæ*, however, the reverse is the case. The nerves are prominent, and parallel, as in the *Melissineæ* ; but the whole 15 are equally distinct, and the upper ones are frequently more distant from each other than the lower ones, and shew a general tendency to a greater developement in the upper sepals.

In several of the *Stachydeæ*, the central nerves alone are distinctly marked, and the lateral ones run irregularly into one another ; but these irregularities are of very little importance.

It is seldom that the tube of the calyx is perfectly straight, especially where it is long. At the base, the under side is usually more prominent than the upper side ; from thence it curves slightly upwards, and the mouth is often incurved again downwards.

The teeth or limb of the calyx† vary considerably, and much reliance has been placed upon these variations in forming generic characters, and even in grouping the genera themselves. To me they have appeared generally of less importance, as not forming natural groups. I have only in special cases considered them as any thing beyond sectional characters, and often as mere specific distinctions.

The most common variation from the regular form is what has been called the bilabiate calyx ; that is to say, when the three upper teeth are more distinctly separated from the lower ones than from one another.

This bilabiation is most apparent in *Prostanthera*, and other genera, where the teeth composing each lip are usually connected to the top so as that each lip is entire.

In *Chilodia*, &c. the upper lip remains entire, but the teeth of the lower one are slightly separated at the apex. In some *Prostantheræ*, the lower lip, on the contrary, remains entire, and the upper lip is slightly 3-toothed.

In *Prunella*, the two lower teeth are separated to the base, the

* I speak here of organic developement in contradistinction to abortion, quite distinct from the foliaceous developement of the limb.

† The tube of the calyx is the lower part of it as far as all the sepals are combined ; all that is above the line where any of the sepals separate forms the limb. If two or more sepals remain combined after separating from the others, they form a lip, and any single sepal from the point of separation, becomes a tooth.

upper ones remaining connected to the apex in a truncate lip, or being only slightly prominent in the form of minute points.

In the *Melissineæ*, the lower teeth are distinct, as in *Prunella*, from the base of the lip; the upper ones are sometimes connected nearly to the top, sometimes free to the base, in which case it is only their being nearer together than to the lower teeth that constitutes the bilabiation, and this is so vague a character, that it is often difficult to say whether a calyx is or is not bilabiate.

In the *Nepeteæ*, the upper tooth is always broader than the lateral ones, and these are broader than the lower ones; and this is so much marked in several *Dracocephala*, that the upper tooth is as broad as all the rest put together. This has been called a bilabiate calyx, with the upper lip entire and the lower one quadrified; but this appears to me to be an inconvenient as well as inaccurate phraseology. Some *Dracocephala*, however, are truly bilabiate.

The *Ocima* have also been said to have the calyx bilabiate in the same manner, but with even less reason, for here there is a tendency to abortion of the upper sepal. It is reduced at the base to a single nerve, but developed into a broad tooth at the top, where the two lateral sepals almost close in so as to exclude, as it were, the upper one, which forms two decurrent wings on the outside of the lateral sepals. In *O. micranthum*, these decurrent wings go down to the bottom of the calyx. In some *Colei*, however, and in *Acrocephalus*, four lower teeth are really combined into a lower lip, and the upper tooth alone forms an upper lip.

In *Scutellaria*, a structure somewhat similar to that of *Ocimum* takes place, but here the lateral sepals completely close into an entire lip beyond the top of the upper lip, which assumes the form of a hollow obtuse squama on the back of the calyx.

In *Synandra* and *Preslia*, the upper sepal is completely abortive, and leaves a nearly quadrifid or quadridentate calyx.

The orifice of the tube (supposing the teeth cut off), which in the regular calyx is at right angles to the axis, is often more or less oblique, sometimes (as in *Nepeteæ*) the tube is longest on the upper side, sometimes (in *Trichostema*) on the lowest; but although, in some instances, it would appear that this character is of some importance, in others (as in *Leucas*) it evidently cannot be considered as any thing more than a sectional distinction. Perhaps, in the one case, it is produced by the general difference in the comparative development of the upper and lower sepals, in others, by a mere variation of the limb, connected with inflorescence. The oblique-limbed calyxes are sometimes called bilabiate,—it is difficult to say why.

Sometimes the teeth are much dilated and spreading, so as to form an infundibuliform calyx, either regular (in *Ballota*), or irregular (in *Moluccella*).

The accessory teeth of the calyx are usually shorter than those terminating the sepals, though sometimes equal to them where they occur. In an irregular calyx they are sometimes very unequal and irregular in number in the different calyxes of the same plant (as in *Lasiocorys*), or they are observable always between the four lower teeth (in *Moluccella spinosa*).

In all the *Nepeteæ* where the upper sepals are the most developed, the lateral nerves of adjoining sepals are never combined; consequently, there are no accessory teeth. If these teeth were produced they would probably occur more between the upper than the lower sepals.

The calyx frequently increases considerably in size, and alters its form after the fall of the corolla (as in *Eriope*, *Plectranthus*, &c.), becoming sometimes much inflated (*Teucrium inflatum*, *Physostegia*, &c.); and in *Hoslundia* it becomes fleshy, forming a sort of berry enclosing the fruit.

For other peculiarities in the forms of the teeth of the calyx, I would refer to the genera *Acrocephalus*, *Æollanthus*, *Peltodon*, *Lavandula*, *Colebrookia*, *Otostegia*, *Notochæte*, &c.

It frequently happens, that at the mouth of the tube in the inside there are more or less long, white hairs, which, after the corolla falls off, close over the orifice, from which circumstance it has been attempted to create generic distinctions; but in the only instances where it appears at first sight to be a good character (*Melissineæ*, *Satureineæ*, &c.), it proves on examination to be but one of degree, which is so vague and so unconnected with other characters, that I have been obliged to abandon it altogether, excepting as aiding in sectional distinctions.

The COROLLA of Labiatae consists of five petals, combined into a tube at the base, and more or less free at the top; or, in other words, it is a gamopetalous corolla, tubular at the base, with a 2- to 5-lobed limb. It is inserted on the receptacle immediately above the insertion of the calyx, and, as the petals alternate with the sepals, there are two upper ones, two lateral, and one lower one. It bears the stamina inside the tube (that is to say, the base of the andrœcium is combined with the corolla), and is entirely free from the ovarium. It is almost constantly more or less irregular.

In the organic developement of the petals this irregularity is constant. The lower petals are less contracted than the upper ones, as shewn by the nervation of the tube; and this is the case not only in the generality of Labiatae when it corresponds with a proportionate contraction of the sepals, but also in the *Nepeteæ*, where that proportionate contraction is reversed in the case of the sepals, but remains the same in that of the petals.

The tube is often quite straight, and apparently regular, but there is generally a tendency to a curve corresponding with that of the calyx, that is to say, it is more or less gibbous at the base on the lower side; it then curves upwards, and towards the orifice is again curved downwards, being often much dilated on the lower side into what is called the throat, or faux.

In many *Plectranthi*, *Colei*, and other *Ocimoideæ*, the gibbosity of the base is considerable; the ascending part of the tube is very short, and it is then very abruptly bent down so as to form a right angle on the upper side, which in the section *Germanea* is even lengthened into a spur.

In many *Ajugæ*, the contraction of the tube immediately above the ovarium is very remarkable.

In *Salvia* the usual curve is somewhat modified (apparently by the peculiar form of the stamina, which I shall presently refer to); the tube is inflated on the lower side below the orifice, where it is again contracted, and in some species (*S. coccinea*, &c.) so much so as to form nearly a right angle.

The limb of the corolla, formed of the free part of the five petals, or, as it is termed, of five divisions or lobes, is much diversified, and these differences are of considerable importance in the distinction of genera.

The most usual form, and that which has given the name to the order, is to be more or less *bilabiate*; that is to say, the lobes are joined or brought near together so as to form two lips, the two upper lobes forming the upper lip, and the three lower ones the under one. But of this form there are several modifications.

The nearest approach to a regular corolla is in the *Menthoideæ*. In *Dysophylla* and several *Menthæ*, the limb is nearly equally 4-lobed; and the stamina being also in these plants equal, the only irregularity consists in the upper division (which comprises the two upper petals) being in a slight degree broader than the others, and sometimes a little emarginate at the top.

In *Thymus* and some other *Satureineæ*, the five divisions are equal in size and depth, but in their *direction* they are slightly arranged in two lips.

In most *Satureineæ* and in *Melissineæ*, several *Prostanthereæ*, &c., the ordinary bilabiate arrangement is more apparent. The upper lip formed of the two upper divisions is erect and plane, entire or bifid, the lower lip spreading, with three plane divisions.

In *Stachydeæ*, *Prasieæ*, most *Monardeæ*, *Nepeteæ*, &c. the two upper divisions are intimately connected into a concave and frequently arched lip, termed a *galea*; the lower lip being usually spreading and trifid, the lateral divisions oval or rounded, plane and spreading, and the central one larger, broader, and frequently emarginate. The lateral divisions are however sometimes, as in *Lamium*, reduced to a small tooth; in the *Salviæ* of the sections *Æthiopis* and *Plethiosphace*, they are erect, oblong, and twisted. The central division is remarkably convex in several *Stachydeæ*, concave in most *Nepeteæ*. In *Monarda* it is reduced to a minute tooth.

In the *Ocimoideæ* the direction of the divisions of the limb is different. The four upper lobes are nearly equal in size, plane, and either all free, or the two upper ones slightly connected together, whilst the lower one is of a different form, and declinate. In *Ocimum* it is merely narrower, and in a slight degree longer. In *Plectranthus*, *Coleus*, &c., it is much longer, and very concave. In *Hyptis*, and the allied genera, it is, as it were, stipitate, abruptly bent down near the base, and then assumes the form of a little bag.

In most *Ocimoideæ* the four upper divisions are ascending. In *Eriope*, and some *Hyptides*, &c., they are all declinate.

These declinate flowers have, by the older authors, been supposed to be *resupinate*; but, in fact, the corolla retains the same position, as

is easily proved by the relative position of the five divisions of the corolla with the axis of the plant, as well as by the estivation (as pointed out by Brown). In the very few cases where there is a real resupination, it is occasioned either by the twisting of the peduncle, as in *Lophanthus chinensis* and *Teucrium resupinatum*; or by that of the tube of the corolla, as in *Ajuga orientalis*, a circumstance evidently of no organic importance.

In *Ajugoideæ* the two lateral divisions are, as in the bilabiate genera, connected with the lower one; but the two upper ones are either very small, or deeply separated, and declinate, as in *Eriope*, so as to form what has been called a one-lipped corolla.

In the interior of the tube of the corolla of many Labiatæ, below the insertion of the stamina, are three to five fascicles of hairs or squamæ, sometimes connected into a horizontal or (in *Leonurus*) oblique ring or *annulus*, sometimes distinct; and in the latter case they are alternate with the stamina, or opposite the petals. They do not in any manner affect the nervation of the corolla; but the substance of the tube is often thicker below than above their insertion; and if carefully torn off, they will carry with them a thin membrane detachable from the corolla to its base.

I have never observed an accidental deformity, or other circumstance beyond those above mentioned which may tend to shew the organic nature of the annulus, whether it be formed by mere appendages to the petals, or whether it be the abortive inner series of the andræcium. The analogy between these fascicles of hairs and the tubal squamæ of Hydrophyllæ, and of some Boragineæ, may rather support the latter theory; but it is evident that we have not yet data to determine the question.*

The annulus has been made much use of by Dr. Koch, in his Programme of the arrangement of German Labiatæ; but although perfectly constant in presence or absence, and in form, in *species*, and sometimes in genera and tribes; yet, in other instances, it is very variable in the most natural genera, such as *Lamium*, *Ajuga*, *Stachys*, *Sideritis*, *Leucas*, &c., and must be used with great caution as a generic character.

The ANDRÆCIUM in Labiatæ consists of a single row of stamina, attached by their filaments, which are always present and filiform, to the tube of the corolla, alternating with its divisions (the petals), and of which either two or four only are perfect and fertile, the three or one remaining ones being either sterile, or wanting altogether. When one only is deficient, it is always the upper one; when three, they are generally the three upper ones. Sometimes, however (in *Westringia*), the two lateral ones (which, on account of the constant abortion, more or less complete, of the upper stamen, are called in Labiatæ the *upper pair*) are alone fertile.

Some *Menthæ* and *Thymi* are occasionally, and, as it were, acci-

* See my observations on Hydrophyllæ in Trans. Soc. Linn. Lond. v. 17. p. 269.

dentally, to a certain degree, diœcious; that is to say, in some individuals the stamina are constantly sterile. This affords no useful character; but being generally accompanied by a smaller corolla, shorter calyx, &c., tends to increase the confusion which has overspread those genera.

In almost all Labiatæ the two lateral stamina are similar to each other, and so also the two lower ones; thus forming, in all tetrandrous species, two pair,—the stamina of one of which are usually longer than, or at any rate are *supereminent* above, the others. In this case the stamina are said to be *didynamous*. Some *Gardoquiæ* appear alone to offer an example of a dissimilarity between two stamina, which usually form a pair.

In *Nepeteæ* it is always the upper stamina that are supereminent. In all other Labiatæ, where any difference in length is perceptible, the lower pair are longest or supereminent; a distinction which appears constant, and therefore of practical importance. But there does not appear to be any collateral evidence of its being owing to the stamina belonging to different series or rows, as suggested to me by Professor Agardh.

The abortion of the upper pair of stamina has been hitherto much relied on in the division of Labiatæ into two great sections; but this tallies so little with other characters, and is often so uncertain, that in many cases it appears to be scarcely available even for generic distinctions: for example, in the *Melissineæ*, where such genera as are formed on that ground only are far from being satisfactory.

The direction of the filaments appears to be of much more importance. In the *Ocimoideæ* they are declinate, usually lying on the lower division of the corolla; in *Menthoideæ*, *Satureineæ*, and some *Prostanthereæ*, they are either divergent or erect (parallel to the axis of the flowers), or slightly ascending. In the other tribes they are usually ascending under the upper divisions of the corolla, or sometimes nearly erect, but never declinate.

The section *Chiastandra* of *Lophanthus*, in the *Nepeteæ*, presents a curious anomaly; the stamina diverge in appearance, as in *Satureineæ*, but it is the upper pair that tends downwards, and the lower pair upwards,—the filaments thus crossing each other nearly at right angles.

The length of the stamina, as compared to the tube of the corolla, may form a good generic character in *Sideritis*, *Marrubium*, &c., but cannot even afford specific distinctions in *Mentha* and *Thymus*.

The point of attachment of the filaments is sometimes near the mouth of the tube, at others below the middle, and they are frequently prominently decurrent to a greater or less distance below the point where they first adhere; but I have not observed any thing in these differences sufficiently constant to make much use of them, perhaps for want of paying sufficient attention to them. In the cases where the annulus is present in the tube of the corolla all trace of the stamina (as distinct from the nerves of the corolla) is lost below the annulus.

The filaments, however close together they may sometimes be, are always free from each other, except in the single genus *Coleus*, where they all adhere together in a tube sheathing the style.

The filaments usually bear the anthers at their extremity, but occasionally (*Prunella*, and several *Stachydeæ*) they are furnished with a short appendage, which, when it is placed close to the insertion of the anther, makes the latter appear lateral; when placed a little below that point, it forms what is called a filament bifid at the top, with one branch antheriferous, the other sterile (*Prunella*). In *Salvia* there are usually two short appendages at the extremity, in the fork of which is placed the connectivum of the anther.

There is also sometimes (*Phlomis*, sect. *Ocimodon* of *Ocimum*, &c.) a dentiform appendage at the base of the filament, either where it first adheres to the corolla, or a little below. But this appears to be of no organic importance, and scarcely serves even as a sectional character.

The most common fertile anther in Labiatae consists of two cells, each opening by means of a longitudinal line into two valves, and placed on a more or less fleshy connectivum, which is articulated at the extremity of the filament.

In the upper or fifth stamen, where any trace of it is perceptible, the anther is reduced to a little head, of so imperfect an organisation that it appears useless ever to take it into consideration. Whenever, therefore, the anthers are mentioned, whether sterile or fertile, it is only the four lower ones, or upper and lower pair, that are referred to.

Where the stamens are ascending and didynamous, the anthers are usually approximate in pairs, and sometimes (especially in *Monardeæ*) those of each pair cohere together by their margins.

In form the anthers vary much, and afford several good generic characters.

In most cases the connectivum is much smaller than the cells, and these are in the bud distinct, but contiguous and parallel; after the pollen is emitted the two cells become more or less confluent at the apex, and divergent at the base, but in very different degrees in different genera.

In *Mentha*, *Thymus*, and many others, the two cells remain to the last nearly as parallel as in the bud. In most *Nepeteæ*, and several *Stachydeæ*, they are already divergent in the bud; and when fully open they become perfectly *divaricate*, forming, by their confluence, one straight linear cell, marked in the centre by a slight contraction, indicating the separation of the two cells. In the *Ocimoideæ*, after the emission of the pollen, the two cells (which are still *divaricate* and confluent) open out into an orbicular *patella*. The anthers of *Phlomis*, *Teucrium*, &c., are intermediate between the two last described.

In the above cases, where the cells are parallel, they are usually vertical; where *divaricate* into one straight line, that line is nearly vertical; the dehiscent line always facing the style. When they are divergent, the apex of the cells points inwards. In *Dysophylla* and *Pogostemon* the anther (consisting of two very short *divaricate* and confluent cells) is placed transversely on the thickened apex of the filament. In *Gomphostemma* the cells are parallel, but horizontal; the apex turned inwards.

In several *Melissineæ* the connectivum is very much thickened, and the two cells are more or less separated from each other. In

Salvia, and the neighbouring genera, it is long and filiform; bearing in *Meriandra* two equal fertile cells, one at each extremity, in most *Salviæ*, at the upper end, a perfect linear cell, and at the lower end either a rudimentary heteromorphous barren cell, or a fertile linear one, differing nevertheless from the upper one in size. In the sections *Heterosphace* and *Hemisphace* of the same genus, the lower end terminates in a point without any trace of the lower cell. In *Audibertia* it is not at all produced beyond its point of insertion on the filament, giving the appearance of an unilocular anther at the extremity of a filament articulate in the middle.

Rosmarinus, the next genus, presents a conformation not so easily made out. The fertile anther is unilocular and linear; resembling, on the one hand, the isolated upper cell of several *Salvias*, and, on the other, the apparently unilocular anther of *Monarda* (which is certainly formed of two confluent cells), and the filament has near the base a deflexed dentiform appendage, which, if the anther be compared to that of *Monarda*, must be considered as analogous to the appendages of *Ocimum* and *Phlomis*; or, if the anther be supposed to be really unilocular, as in *Salvia*, this tooth must be the prolongation of a filiform connectivum. I have frequently examined the buds of *Rosmarinus* in a living state, without being able to come to a satisfactory conclusion on this point; but, contrary to the opinion of most botanists, I confess that the analogy with *Monarda* strikes me as the closest.

Anthers, of which one cell is abortive or sterile, as above mentioned, are said to be *dimidiate*. In the above cases it is the lower one that is abortive; in *Scutellaria* and *Perilomia*, several *Sideritides*, &c., on the contrary, the upper one is abortive, and the lower one alone is fertile.

In cases where one pair of anthers are abortive they sometimes assume peculiar forms, as in *Westringia*.

Hairs, appendages called *spurs*, &c., characterise the anthers of several *Lamia*, *Scutellaria*, *Prostanthera*, *Dicerandra*, &c.

Other peculiarities in the form of the anthers are described under *Synandra*, *Galeopsis*.

From the above-mentioned variations in the Andrœcium, it will be observed, that, although all Labiatæ are usually referred to the Linnæan classes *Diandria* and *Didynamia*, several genera would be equally well placed in *Tetrandria*, *Monadelphia*, or *Syngenesia*.

The GYNŒCIUM is still further reduced than the Andrœcium. For although occasionally monstrous flowers in *Sideritis canariensis*, *Coleus aromaticus*, *Salvia cretica*, &c. have shewn that the normal number of carpellary leaves forming it is five; yet, in the habitual state of the Labiatæ, this number is constantly reduced to two, which are placed fore and aft, — one upper one, or next the axis, and one lower one; and which are constantly concrete into one pistillum inserted on the apex of the torus, enlarged into a fleshy *gynophorum*, and consisting of,

1. An *ovarium*, divided nearly to the base into four equal and

equally-divided lobes, each containing one erect ovulum; or, if it be established that the pistil is formed of two carpellary leaves, the ovarium may be described as divided into two bipartite lobes, and consisting of the concretion of two bilocular ovaria with uni-ovulated cells.

2. A filiform *style* inserted in the centre of the ovarium, between the lobes, and usually more or less deeply divided at the top (rarely, as in *Perilla*, below the middle) into two lobes; or (with reference to the theory of two carpellary leaves), consisting of two styles concrete in the lower part, and usually free at the apex.

3. Two *stigmata* placed at the extremity of the divisions of the style, and usually very minute.

From the above usual and typical forms, the Gynæcium, as is the case in most very *natural* orders, affords but few variations, and but little use can be made of it in the distinction of genera. The following are perhaps the only modifications worth notice.

The gynophorum is sometimes straight, obtuse, and entire at the top; more frequently it forms four more or less prominent lobes, which have been called glands, although they appear to be in no manner distinct from the general mass of the gynophorum, and which alternate with the lobes of the ovarium. In a great number of Labiatae these lobes of the gynophorum are equal in size, and smaller than the lobes of the ovarium. In most *Ocymoidæ*, and other genera where the corolla is gibbous at the base, the lower lobe of the gynophorum is remarkably large, often larger than the ovarium, whilst the upper ones remain very small. In *Tetradenia* the four lobes are equal, and longer than the ovarium, so as completely to conceal it. In *Scutellaria* the gynophorum is remarkably elongated and incurved.

In *Cymaria*, several *Teucria* and *Prostanthereæ*, the ovarium is less deeply divided than in the generality of Labiatae, and in some genera the ovarium is hairy. *Holmskioldia*, a somewhat anomalous genus, affords an example of two bifid and not bipartite lobes to the ovarium.

The style divided below the middle in *Perilla*, is quite entire in *Orthosiphon*; the divisions are equal in length in most genera, but in many *Melissineæ* and some *Stachydeæ* the upper one, and in most *Salviæ* the lower one, is very short. Where this inequality exists, the short one either remains filiform (*Salvia*, *Melissineæ*), or is thickened towards the top (*Sideritis*); the longer one is also filiform in *Salvia*, but in *Melissineæ* and *Sideritis* it is often dilated, and embraces the upper one at the base. In the genus *Phyllostegia*, where both lobes are equal, they are both frequently thickened at the apex.

Wherever the divisions of the style are filiform, the stigmata are very minute, and placed on the inside of the apex of the divisions; where these divisions are flattened, the stigmatic surface usually extends down their margins; where they are incrassate, the stigmata are more prominent and terminal. Where the style is entire, the stigmata are usually concrete and capitate.

The style of *Clconia* is remarkable in being quadrifid at the apex with four stigmata without any multiplication of the lobes of the

ovarium; a structure not perfectly reconcileable with the supposition that three out of five carpellary leaves are abortive in Labiatae, although, generally speaking, the latter theory appears the most plausible.

The FRUIT of Labiatae consists of four (or, by accidental abortion, fewer) achenia or nuts, enclosed in the persistent calyx, each formed of one of the lobes of the ovarium, which retain their characters as to situation and as to their relation to each other, but which occasionally afford a greater diversity in exterior form, and surface.

They are usually obovoid, blunt at the apex, more or less bluntly triangular in their transverse section, one angle being directed inwards, and the base is attenuate and pointing inwards. Very frequently, however, they are almost globular. In *Lamium*, *Leonurus*, and some other *Stachydeæ*, they are long, prism-shaped, truncate at the apex, and all the angles are remarkably sharp. In *Colquhounia* they are produced at the apex into a long membranaceous wing. In several *Phlomidæ*, also, there is a short one. In *Achyrospermum* they are described to be "arillo paleaceo coronata;" evidently an inadvertent use of the word arillus, and probably referring to the paleaceous squamæ, analogous to hairs, with which they are covered in two species which I have referred to that genus. In *Hyptis membranacea* and some others, they are bordered by a vertical membrane, which in *Marsypianthes* is very broad and curved inwards, so as to give them a cymbiform appearance. In many instances the achenia, when immersed in water, are enveloped in a mucilaginous substance.

The substance of the pericarp usually varies from membranaceous to coriaceous. In *Lycopus* it is thickened and cartilaginous; in *Prostanthereæ* it is almost, and in *Prasiæ* completely, fleshy.

The surface is either smooth and shining, or opaque, or covered with small tubercles, or, in *Ajugoideæ*, reticulately rugose; usually glabrous, but sometimes hairy, or, as above mentioned, squamose in *Achyrospermum*.

The seeds of Labiatae being, even at their maturity, constantly enclosed in the pericarpium, afford still less variety. In nearly all that I have examined, taken from a great variety of genera, the perisperm is thin, there is scarcely any trace of albumen, the embryo is erect and straight, or slightly incurved, following the direction of the achenium, deeply divided into two cotyledons, opposed to each other in a direction usually at right angles to the floral radius. Whether these cotyledons are semi-terete, or more or less compressed in a direction parallel to or at right angles to the floral radius, depends on the direction in which the achenia are most developed, the seed usually filling up the whole or nearly the whole cavity of the pericarp.

In *Scutellaria* alone has been observed a remarkable dissimilarity in the form of the embryo, which is curved backwards in a peculiar manner.

In the ANATOMICAL STRUCTURE and PHYSIOLOGY of Labiatae I have made but few observations myself, and have nothing to add to what has been said either in the general works on vegetable physiology,

of which so many have been lately published,* or in the special memoir of Mirbel in the 15th volume of the "Annales du Muséum;" where also will be found all that is as yet known respecting the hairs, glands, and other cutaneous productions of the Labiatae.

The PROPERTIES of Labiatae may be summed up in a few words. None are known that are in the least degree hurtful. A large number are in a high degree aromatic, owing to the essential oil secreted by the glands; and many species, especially amongst the *Ocimoideæ*, *Menthoideæ*, *Saturineæ*, and *Melissineæ*, are consequently much used as condiments in cookery, or in preparing perfumed distilled waters. Some few are bitter, and on this account the *Ocimum viride* is said to be used as a febrifuge in Sierra Leone. The same principles occasion their being sometimes used as tonics or slight stimulants (balm and sage tea, &c.), or applied externally for exciting sores. Some few roots, such as *Orthosiphon tuberosum*, some species of *Coleus*, *Stachys*, *Leucas*, &c. are said to be esculent, but those who have tasted them are not satisfied with their flavour.

The GEOGRAPHICAL DISTRIBUTION of plants is becoming every day more important as the number of facts collected increases, and its connexion with other sciences is made more evident. Without entering at present into any of these ulterior considerations, I have, in regard to Labiatae, collected as many general stations as appeared to me to be tolerably certain, and have reduced the result into the form of the table which accompanies this work. It was drawn up in the spring of the present year (1835), at the time I published my Supplement, and I had not then received the volume of the Linnæa, in which Professor Schouw published his paper on the geographical distribution of plants. And although, in some instances, my regions might perhaps be advantageously modified so as to correspond better with his, yet it did not appear to me that any alterations were required of sufficient importance to make it necessary again to go through the labour of preparing the table. I therefore publish it as I had framed it, and shall now proceed to explain my views with regard to each region.

I have supposed the world divided into nine *Zones*, each occupying the whole circumference of the globe at different latitudes; and in each of these I have shewn the total number of Labiatae, and the number found respectively in the Old and New Worlds; and again, each zone is subdivided into a greater or lesser number of *Regions*, according as the extent of land and other circumstances seemed to point out as useful within the limits of a table. Of these the total number is 61.

* Of these I would particularly mention those of De Candolle and Lindley.

My first or ARCTIC ZONE corresponds with the arctic part of Schouw's first or arctico-alpine region, and comprehends Lapland, the north coasts of Russia and America, Greenland, and Iceland. Although the vegetation of these desolate lands has certainly much resemblance to that of the summits of the higher mountains in more temperate regions, yet in the latter case the powerful summer suns, and the rarefaction of the air, make so essential a difference in climate, that, even were all the plants the same there would be an advantage in considering them separately. It will also be observed, that the characteristic genera, mentioned by Schouw as common to both regions, are mostly numerous genera, found in a great variety of climates and situations; and the species of these genera peculiar to the polar district are generally different from those of the alpine one.

In the case of Labiatæ the arctic zone is of little importance. None have been found in the American portion, nor in Greenland or Iceland. In Lapland may be traced the northern limits of *Prunella vulgaris*, *Scutellaria galericulata*, and *Galeopsis Tetrahit*, all of them abundant in northern Europe. The only plant peculiar to the region is the *Mentha lapponica*, which, indeed, may possibly be only a northern form of *M. arvensis*.

The second, or NORTHERN COLD ZONE, extends in Europe and western Asia from about 55° to the arctic circle. Towards the eastern coast of Asia it ought perhaps not to come below 57° or 58° . In America it may be carried down to 48° , or, perhaps, even to 45° in the centre of the continent. It is included by Schouw in his 2d, or North Europe and North Asiatic, and 4th, or North-North-American regions; the remainder of which two regions are comprehended in my northern temperate zone. With respect to Labiatæ, it certainly still appears to me essential, and indeed to be useful in regard to all plants, to draw a line somewhere about where I have done it; but there might also be a considerable advantage in forming a separate group of the southern part of Schouw's 2d and 4th regions, which would comprehend the whole of the 1st and 9th, and parts of the 7th, 10th, and 11th regions of my 3d zone. But the state of our knowledge of the Botany of the latter regions does not admit of it for the present.

The northern cold zone contains 70 species; that is, 42 in the Old and 31 in the New World. Of these, 9 only are peculiar to the zone; but all of them belong to genera more numerous in the northern temperate zone. Three species, mentioned above, extend into the arctic zone, and 61 belong also to the temperate zone. Three only are in this zone common to the Old and New World; but 31 of those found in the European part are also found in the more temperate zones of the American continent. Amongst them the American *Stachys aspera* and *Mentha borealis* extend into East Asia; *Scutellaria galericulata*, *Prunella vulgaris*, and *Stachys palustris*, are common in both divisions; the remainder are common European plants that appear to have strayed, or, perhaps, have been carried into the New World.

The northern cold zone comprehends the seven following regions, of which five are in the Old and two in the New World:—

1. The *Scotch region*, containing Scotland and the surrounding islands. The botany of this country may be considered as well investigated with respect to Labiatae, but contains nothing peculiar to itself. The number of genera is 16, that of species 31; all of them found generally in northern and temperate Europe.

2. The *Scandinavian region*, comprehending the whole of Norway and Sweden, south of the arctic circle, and including both sides of the Gulf of Bothnia. This region, being more continental, as well as more extensive than the Scotch, is also richer; for, although perhaps less known, the number of genera is 17, and that of species 37. The character as to species is much the same, with the addition of the two more Oriental genera *Elsholtzia* and *Dracocephalum*; and without *Teucrium*, which does not appear to cross the Baltic. There is no endemic species known.

3. The *North Russian region* comprehends the whole of Russia within the latitudes ascribed to the zone, and from the Baltic to the limits of Asia. There is probably little difference between the Labiatae of this region and those of the Scandinavian; but having scarcely any data but those furnished by Sobolewski's old Flora of St. Petersburg, and a few plants received from correspondents, I have only been able to set down 28 species as belonging with certainty to the region—none of them endemic.

4. The *Siberian region*, extending from the Oural to Yakutsk; and 5, the *Kamtschatkan region*, containing the peninsula of Kamtschatka, and the shores of the sea of Ochotsk, as far as the town of that name, are still less known, and the numbers set down in the table can give no idea of the real number of Labiatae they may contain. It is probable that many of the Asiatic species belonging to the temperate zone extend beyond the limits of the cold zone.

The cold zone in the New World comprehends the greater part of the British territory,—for the Flora of which materials so ample have of late been collected by Dr. Hooker. It is divided into two regions by the northern part of the Rocky Mountains. In the western, or *Columbian*, I have enumerated 11 genera and 17 species. Of these, one genus (*Audibertia*) and 10 species, are not found at all to the east of the Rocky Mountains, and 8 species are absolutely endemic.

The eastern, or *Canadian region*, contains 15 genera and 19 species, of which 7 genera (*Monarda*, *Pycnanthemum*, *Collinsonia*, *Cunila*, *Hedeoma*, *Dracocephalum*, and *Teucrium*), and 14 species have not been found to the east of the Rocky Mountains; but all of them extend into the United States.

The 3d, or NORTHERN TEMPERATE ZONE, extends in Europe from the limits of the 2d zone to the Mediterranean, of which it includes all the peninsulæ projecting from the north coast and the intermediate islands. It then takes in Asia Minor, the shores of the Black Sea, the chain of the Caucasus, the shores of the Caspian, except, perhaps, the south coast, the chain of the Altai, the Chinese empire north of the 40th degree of latitude, the Kurile and Aleutian Archipelago,

North California down to Monterey, the Missouri territories, and the United States of North America, with the exception of those that border the south coast.

This zone comprehends the greater portion of Schouw's 2d, or North Europe, and North Asian, 3d, or Mediterranean, and 4th, or North North American regions. It does not appear in which of his regions the rich and peculiar Floras of South East Asiatic Russia, North China, and North California, would be contained.

The north temperate zone is one of the richest in Labiatae, especially in the Old World, both as to absolute number of species, and probably as to their proportion to other orders. The total number is 57 genera and 508 species,—of which 40 genera and 416 species in the Old World, and 35 genera, with 106 species, in the New. Of these, 17 genera, but only 14 species, are common to both continents; and of these 14, the *Prunella vulgaris* and *Lamium amplexicaule*, are perhaps the only real cosmopolitan species. *Scutellaria galericulata* and *Stachys palustris* spread into the northern parts of the American division of the zone; and the remainder are European plants, probably carried out to America by Europeans.

Seven genera (*Preslea*, *Rosmarinus*, *Horminum*, *Amaracus*, *Melittis*, *Lagochilus*, and *Amethystea*), and 291 species in the Old World, and 6 genera (*Isanthus*, *Blephilia*, *Dicerandra*, *Macbridea*, *Synandra*, and *Pogogyne*), and 61 species in the New World, are peculiar to this zone; besides which, 16 genera in the Old World (*Mentha*, *Ziziphora*, *Thymus*, *Satureia*, *Hyssopus*, *Melissa*, *Thymbra*, *Dracocephalum*, *Lamium*, *Leonurus*, *Galeopsis*, *Sideritis*, *Marrubium*, *Moluccella*, and *Prasium*), and 9 in the New World (*Monarda*, *Pycnanthemum*, *Monardella*, *Collinsonia*, *Cunila*, *Hedeoma*, *Lophanthus*, *Physostegia*, and *Trichostema*), are chiefly found in it; a few species only extending into the adjoining zones. It contains the northern limit of the *Ocimoideæ*, of which there is one genus (*Lavandula*) in the Old World, and one species of *Hyptis* in the New; and of the *Prasieæ*, of which the genus *Prasium* belongs to the European portion. All the other tribes, with the exception of the *Prostanthereæ*, are abundant; and amongst the principal genera may be mentioned *Mentha*, *Salvia*, *Thymus*, *Melissa*, *Micromeria*, *Scutellaria*, *Nepeta*, *Dracocephalum*, *Lamium*, *Stachys*, *Sideritis*, *Marrubium*, *Phlomis*, *Teucrium*, and *Ajuga*; and in the New World, *Monarda* and *Pycnanthemum*.

Of the 11 regions into which I have divided this zone 5 belong to Europe, in which the stations are so much better known, that I have been enabled to give the comparative number with greater accuracy, and to divide the zone according to latitude as well as to longitude. In the remainder I have been obliged to leave the regions very large, occupying the whole breadth of the zone. The regions are as follows:—

1. The *temperate European region*, containing the whole of Europe south of the cold zone and north of the chain of mountains which extends from Biscay to Austria, comprehends Ireland, England, France down to the Pyrenees and Cevennes (excluding the southern

declivity of these mountains), Germany north of the Alps, Poland, Galicia, and Volhynia. Extensive as is this region, it contains comparatively few Labiatae, viz. 21 genera, 80 species; and amongst these but 3 are endemic. Indeed from the extent to which it is cultivated, and the comparatively little diversity of climate and aspect, it would possess little interest to Botanists in general, were it not the native country of so great a proportion of them.

2. The *Alpine region* comprehends the whole of the mountainous country that extends from France to the Dniester, exclusive of the southern declivity: the higher and northern Pyrenees, the Upper Cevennes and Auvergne, Savoy and Switzerland, with the exception of the Italian cantons, the Tyrol and Salzburg Alps, the Styrian Alps and Crapack mountains. There is less difference between this and the preceding region in respect of Labiatae than in respect of many other orders; for the Labiatae seldom ascend high in the mountains, and but few are peculiar to mountainous regions in the temperate zone. Amongst these the principal ones are *Horminum pyrenaicum* (the only one of the genus) and *Scutellaria alpina*. The *Dracocephalum austriacum* and *Ruyschiana*, and the *Ajuga alpina*, are also chiefly mountainous. The genera *Micromeria* and *Phlomis* extend into this region from the more southern regions without passing into the temperate European. The total number of genera is 24, and of species 81—of which 2 are endemic.

3. The *Spanish region* contains Portugal, Spain, and that part of the south of France in which the olives grow as far as the Rhone. This is peculiarly rich in Labiatae, as, although much of it is comparatively little explored, it is known to contain 31 genera and 190 species; amongst which the curious *Cleonia Lusitanica*, the *Preslea cervina*, the greater portion of the genus *Sideritis*, especially of the section *Eusideritis*, and many species of *Salvia*, *Thymus*, *Teucrium*, &c., are either peculiar to it, or extend a little way into the opposite coast of Africa. The number of absolutely endemic species is 52.

4. The *Apennine region* contains Italy, Sicily, Sardinia, Corsica, Provence, the maritime Alps, the southern cantons of Switzerland, South Tyrol, and Illyria. It is less rich than the Spanish in Labiatae; for, although better known, it contains but 28 genera and 161 species. No genera are peculiar to it, and but 14 species are endemic. It contains no Spanish genera, or, perhaps, species, that do not extend to the Grecian region; and but few Greek species and one genus (*Moluccella*) that do not extend to Spain; and the genus *Ziziphora*, and several species of *Salvia*, *Micromeria*, *Thymus*, &c., grow in those two regions without having been found in this intermediate one.

5. The *Grecian region*, comprehending Turkey south of the Balkan, from Dalmatia to the Black Sea, the Grecian continent and Archipelago, Crete, and Asia Minor,* from the Bosphorus to Cape Chelidonia, is again a very rich one in Labiatae; 32 genera and 188 species

* Perhaps if the Flora of Cyprus, and the coast of Asia Minor, as far as the Gulf of Alexandria, were better known, it should be included in the Greek region.

are already known to be indigenous, and almost every botanical excursion to that country adds Labiatae to its Flora.* The genera not found in Spain are *Amaracus*, *Majorana*, *Thymbra*, and *Moluccella*, of which the first is peculiar to this region, and the three others are common to this region and the north hot zone. The principal genera are *Salvia*, *Thymus*, *Melissa*, and *Stachys*; and 52 species are endemic.

The three last mentioned regions, with the 2d and 3d of the north hot zone, form what is usually called the *Mediterranean region*, to which Schouw also gives the name of the *region of Labiatae* and *Caryophylleae*. It appears to me, however, that the three former, comprehending all the islands and peninsulæ, with the north coast, would be a limitation more conformable to the peculiarities of the Flora; and that the plants of the south coast (except the maritime plants) partake more of the character of the North African mountains and deserts.

6. The *Tauro-Caucasico-Caspian region*, comprehending the territories surrounding the Black and Caspian Seas, and the chain of the Caucasus, ought perhaps to be subdivided; but as they have been blended together in the Floras of Bieberstein, C. A. Meyer, &c., I have been unable to mark out any decided districts. The Labiatae, though still numerous, decrease in number, there being but 26 genera and 140 species known in a country at least as well explored as Spain. The Mediterranean or West European genera, *Lavandula*, *Rosmarinus*, *Amaracus*, *Majorana*, *Satureia*, *Micromeria*, *Thymbra*, *Melittis*, *Moluccella*, *Prasium*, are either no longer found, or in comparatively small numbers; and the eastern genera, *Elsholtzia*, *Ziziphora*, *Nepeta*, *Dracocephalum*, *Eremostachys*, and *Amethystea*, are either first found here, or first assume a prominent feature in the mass of Labiatae. There is no genus peculiar to the region: the number of endemic species is 36.

7. The *Altaic region*, the limits of which are but vaguely known to me, comprehends generally the chain of the Altai mountains, the Soongoro-kirghise deserts, and other territories comprised in Ledebour's Flora Altaica. The region contains 25 genera and 73 species. It has no genera exclusive of other regions, but forms, as it were, the central station of *Elsholtzia*, *Eremostachys*, *Lagochilus*, and *Amethystea*. The other principal genera are *Dracocephalum*, *Nepeta*, *Scutellaria*, and *Phlomis*; and the endemic species are 29.

8. The *North Chinese region* is at present still more vaguely defined, and little known. It is probably richer in Labiatae than the Altaic. In it I have included all those mentioned by authors as growing in Dahuria, and the collections of Sir G. Staunton, Turczaninow, and Bunge, in North China. They consist of 13 genera and 31 species. Of these, 12 genera are also found in the Altai, and the

* I have included in the Geographical table the species collected by Berger, and which I have received from my friend Professor Zuccarini since the publication of my Supplement. I do not find among them any plant answering the description of *Nepeta argolica*, mentioned by Link in the Linnæa as being figured by Bory in his Expédition de Morée, a work that I have not yet met with.

other, *Lophanthus*, is a North American one. The number of endemic species is 15.

9. The *Aleutian, or Kurile region*, comprising the islands between North China and America, and perhaps the southern extremity of Kamtschatka, is merely indicated here as probably connecting the Flora of the two continents. Nothing is known of the Labiatae growing here except that the *Prunella vulgaris* has been gathered in some of the islands.

10. The *New or North Californian region* comprehends America west of the Mexican Andes, within the limits of this zone. As yet we have not data to determine the natural boundaries north and south; and the Botany of the country is chiefly known by the rich collections made principally about Monterey by the late David Douglas. Amongst the Labiatae there are 12 genera and 24 species. Of these, *Pogogyne*, *Audibertia* (with the exception of *A. carnosa* from the Columbia River), the sections *Echinosphace* and *Pycnosphace* of *Salvia*, are peculiar to the region,—as also, one *Sphacele*, two *Monardella*; one *Scutellaria*, and two *Trichostemmata*, making altogether 18 endemic species.

11. The *United States' region* must, in the present state of our knowledge, extend over the whole of the United States territory east of the mountains, with the exception of the States which border the south coast. It is probable that it should be distinguished into two or three; the Floras, for instance, of the Missouri, of Pennsylvania, and of the mountains of Carolina, being very different in their general character. It is to be hoped that the Flora about to be published by Dr. Torrey will throw sufficient light upon the geographical distribution of the United States' plants to enable their territory to be botanically divided. In the meantime I have collected the Labiatae of the whole region under one head. They consist of 32 genera and 85 species,—a small number when compared to that of Labiatae in a similar extent of country in south Europe; and many of these 85 are not truly indigenous. Of these, 9 genera, *Isanthus*, *Monarda*, *Blephilia*, *Pycnanthemum*, *Collinsonia*, *Dicerandra*, *Physostegia*, *Macbridea*, and *Synandra*, are either peculiar to the region, or extend only into the adjoining regions north and south; the genera *Monardella*, *Trichostemma*, and *Cedronella*, cross the mountains to the west, but are exclusively North American; *Lophanthus* crosses the ocean to East Asia, and *Cunila*, *Hedeoma*, *Gardoquia*, and *Hyptis*, are South American genera, which have each one or two representatives within the limits of the present region. The total number of endemic species is 43.

IV. The NORTH HOT ZONE extends from the southern limit of the 3d zone to near the tropic of Cancer, either a little above or below it, according to the nature of the country. It comprehends the southern portion of Schouw's 3d, or Mediterranean region, the northern portion of his 13th, or desert region, and his 8th, or Himalayan, 6th, or Chinese-Japanese, 16th, or mountainous Mexican, and 5th, or South North American regions.

This zone is again rich in Labiatae, but not quite in the same pro-

portion as to those of the Old and New World, there being 55 genera and 406 species in the former; and 24 genera, with 125 species, in America, notwithstanding the immense difference in extent of the land occupied by the zone in the two hemispheres. In the Old World, too, the western portion ceases to preponderate, the greater number being in the Himalayan region. Possibly, however, these proportions may be altered when the Atlas, and other mountains of North Africa, come to be better known. The number of species common to the Old and New World is but 6, and of these all but *Prunella vulgaris* and *Lamium amplexicaule*, appear to have been carried out to America by Europeans.

Seven genera (*Colebrookia*, *Bystropogonis* sect. 1., *Marmoritis*, *Craniotome*, *Roylea*, *Notochæte*, and *Eriophyton*), in the Old World, and the genus *Lepechinia*, in the New, are peculiar to this zone, besides which the genera *Elsholtzia*, *Nepeta*, *Phlomis*, and the section *Acanthoprasium* of *Ballota*, have their greatest number of species within its limits. The total number of endemic species is 343, of which 252 in the Old World, and 91 in the New.

The north hot zone comprises the following 12 regions:—

1. The *Canarian region*, or Madeira and Canary Islands, is rich in Labiatae, as, notwithstanding their small extent, 17 genera and 42 species, are known to be indigenous; and the number will probably be increased by the publication of the detailed Flora of Messrs. Webb and Berthelot. The character of the vegetation resembles, in some respects, that of the west coast of Europe; in others that of the north coast of Africa, and has many features peculiar to itself, as it contains 17 endemic species; and, amongst genera, the 1st section of *Bystropogon*, the section *Marrubiastrum* of *Sideritis*, and the section *Teucropsis* of *Teucrium*, are not found elsewhere. Amongst the other genera may be cited *Micromeria*, as one of the most numerous in the region.

2. The *Mauritanian region* should comprehend the regencies or States of Morocco, Fez, Algiers, Tunis, and Tripoli, as far east, perhaps, as Cape Razata, and as far south as the Great Desert, including the whole chain of the Atlas. The number of Labiatae now known in the region is 80, contained in 21 genera; but as the mountainous tract, which, in hot countries, is always rich in Labiatae, has been but very little explored, it is probable that these numbers fall very far short of the reality. No genus is exclusively found here, and but 19 species. The most numerous genera are *Teucrium*, *Stachys*, *Nepeta*, *Micromeria*, and *Salvia*.

Perhaps when the Flora of this territory is better known, it might be more botanically divided into two regions; the one confined to the chain of the Atlas, the other extending from the foot of the Atlas to the frontiers of Egypt: in this case the north-western extremity might perhaps be included in the Spanish region.

3. The *Egyptian*, or better the *Egyptio-Syriac region*, is formed of Lower Egypt, Palestine, and Syria. The mountains of Lebanon, at present included in the region, are not much known, but are probably rich in Labiatae; and with the whole of North Syria, and

the southern mountains of Asia Minor, might possibly form a distinct botanical region more connected with the temperate than the hot zone. As at present constituted, the region possesses 25 genera and 106 species. None of the genera are exclusive to it; the richest in species are *Salvia*, *Sideritis*, *Stachys*, *Phlomis*, and *Teucrium*. It contains the southern limit of many European genera and species; the western limit of several Persian species, and the northern limit of the section *Ambleia* of *Stachys* and of many African species. The section *Pterostæchas* of *Lavandula*, which has 2 or 3 Egyptian species, is almost exclusively African. The number of endemic species is 56.

4. The *Persian region*, the natural limits of which cannot be precisely stated, extends generally from the Caucasus to the Persian Gulf, and from Syria to Cashmere. The Flora is little known, and is peculiarly interesting, as forming the connecting link between the Mediterranean and Himalayan regions, and between the Caucasian and the Arabian; and as these surrounding territories are known to be rich in Labiatae, that order must be expected to occupy a considerable portion of the Persian Flora. The species now known, chiefly collected by Olivier and Bruguère, amount to 17 genera and 51 species.* The most numerous genera are *Salvia* and *Nepeta*. The number of endemic species is 23.

5. The *Cashmerian region*, or valley of Cashmere, appears from the collections of Royle and Jacquemont to differ from the general Himalayan range by the greater number of European and Caucasian plants, which are there found; and I have therefore distinguished it from the Himalayan region perhaps without sufficient grounds. Of the 21 genera there found, none are exclusively so. The total number of species is 53, of which 14 are endemic.

6. The *Himalayan region*, comprehending the whole range of mountains that bound India to the north, from Cashmere to the Irrawaddi. Although it is only here and there that they have been visited by botanists, the number of plants they have produced is very large; and amongst them, 149 Labiatae contained in 43 genera. Of these, 5 (*Colebrookea*, *Marmoritis*, *Craniotome*, *Roylea*, *Notochæte*, and *Eriophyton*), are exclusively found in the region; and 92 species are endemic. The most numerous genera are, amongst the northern and western ones, *Nepeta*, *Salvia*, *Elsholtzia*, *Scutellaria*, *Melissa*, *Stachys*, *Phlomis*, *Teucrium*, and *Ajuga*; and amongst the southern, or Indian ones, *Plectranthus*, *Orthosiphon*, *Leucas*, and *Gomphostemma*. It is in this region that the most alpine Labiatae have been found,—the *Nepeta nivalis* and *N. thibetica* having been gathered by Jacquemont near the limits of eternal snow.

7. The *Chinese region*, or the Chinese empire, with the exception of the northern part included in the temperate zone, is scarcely known, except from a few plants collected near Macao and Canton; amongst which are 16 Labiatae belonging to nine Himalayan genera. Of these,

* M. Berlandier's collection, which he shewed me on my last hasty visit to Paris, evidently contains several new species of *Salvia* and *Nepeta*, some of them, unfortunately, in a very imperfect state.

5 species are endemic. The *Æollanthus suavis*, cultivated by the Chinese in Brazil, is also probably a Chinese plant; and, if so, it is a genus peculiar to the country.

8. The *Japanese region*, comprehending the Japanese islands, has been hitherto known only by the Flora of Thunberg, who cites 24 Labiatae. Of these, I have seen 7 belonging to 6 genera, all of them Himalayan; but all, with the exception of *Prunella vulgaris*, endemic species,—6 are referred by Thunberg to *Ocimum*. The rich collections of Dr. Siebold, who, with Professor Zuccarini, has kindly promised to entrust to me the Labiatae for description, have not yet reached me.

9. The *Californian region* should probably consist of the peninsula of that name, with the opposite Mexican coast to the foot of the mountains. Nothing is known of the Labiatae it contains excepting that one species of *Stachys* and the *Marrubium vulgare* have been gathered there. The plants which are quoted in books or found in collections as gathered in "California," are chiefly from the New Californian or from the Columbian regions.

10. The *Mountainous Mexican region* includes the whole chain of Mexican Andes as far south as the frontiers of Guatemala, that is, the whole tract known under the name of Tierra Fria and Tierra Templada, and consequently extends below the ordinary southern limits of the zone. The vegetation here assumes in many respects the character of the tropical mountains of America, and is much richer in Labiatae than the lower regions, the number of species already known being 85, and every excursion into these mountains produces several new species. The number of genera is but 12, as 57 belong to *Salvia* (sect. *Calosphace*). The other most numerous genera are *Stachys*, *Scutellaria*, and *Cunila*, besides which *Lepechinia* is exclusively found here. The number of endemic species is 81.

11. The *Mississippian region* consists of the greater part of the Mexican provinces of New Leon, of that of Texas, and the states of New Orleans, Alabama, and West Florida. The general character of the vegetation is a mixture of United States and West Indian plants. The number of Labiatae known is 39, comprised in 17 genera. This and the Floridan region contain the southern limits of *Lycopus*, *Monarda*, *Pycnanthemum*, *Collinsonia*, and *Physostegia*, and the northern limits of *Keithia*, and nearly so of *Hyptis*. No genus is peculiar to it, but 8 species are endemic.

12. The *Floridan region* contains the Floridan peninsula and the Bahamas, all but the southernmost islands. The character of the vegetation is evidently more West Indian than that of the preceding region, but is too little known to afford any precise data. The genera of Labiatae are, as far as known, the same as in the Mississippian region; the total number of species ascertained to grow there is but 11, of which 2 are endemic. Amongst them are the only North American species of *Gardoquia* and *Satureia*.

We now come to tropical countries, which one might be disposed to unite into one zone were it not for the great difference in the species a few degrees north or south of the equator; and indeed the very

local distribution of plants generally under a very high temperature. I have therefore traced three separate zones within the tropics, and continued the same arrangement I have hitherto followed, in order to shew the comparative vegetation in different parts of the globe under the same latitudes. At the same time I admit that it disperses in different zones Professor Schouw's Polynesian and West Indian regions, which are both very natural. But, in every case, each of my regions must be considered as nearly as much allied to a region in each of the two adjoining zones as to the adjoining regions in the same zone. Of the tropical zones, the first is

V. The NORTH TROPICAL ZONE, from the limits of the *North Hot Zone* to 5° or 6° north latitude in America, a rather higher latitude perhaps in Africa, and in Asia to the Indian Ocean, including the island of Ceylon, but excluding the Malayan Peninsula and the Indian Archipelago. The number of Labiatae in this zone is not only absolutely much less, but less also in proportion to the extent of land than in the preceding one; for in the New World there is little land included in it, and that is chiefly low, and in the African and Arabian portions the mountain regions, where alone in tropical countries the Labiatae are abundant, are almost entirely unknown. Owing, however, to the Floras of the East Indian Peninsula, and of the hotter parts of Mexico, having been of late pretty well explored, I have been enabled to enumerate 43 genera and 244 species; of which 38 genera and 174 species in the Old, and 15 genera and 76 species in the New, and 5 species common to the two. Of these three, *Leucas Martinicensis*, *Leonotis nepetæfolia*, *Leonurus sibiricus*, are common species in the Old World within the tropics north of the equator, and being found in the New World near the coast only, and belonging to genera otherwise found in the Old World, only appear to have been carried out to America; another, *Hyptis suaveolens*, has, for the same reasons, probably spread into the Old World from America; and the fifth is the cosmopolitan *Prunella vulgaris*. The number of endemic species is 167 in the zone,—123 in the Old World, and 44 in the New. The Arabian and Abyssinian genus *Otostegia*, the Burmese *Cymaria*, and the two Sandwich island genera *Phyllostegia* and *Stenogyne*, are the only ones not found in other zones also. The European, North Asiatic, and United States genera have almost entirely disappeared, and are replaced by *Dysophylla*, *Pogostemon*, *Ocimoideæ*, *Leucas*, &c. in Asia, and by *Hyptis*, *Salvia*, &c. in America.

The North Tropical zone comprehends Schouw's 12th, or Arabian, part of his 13th, or Desert, his 7th, or Indian, and 19th, or West Indian regions. It contains nine of my regions—six in the Old World, three in the New.

1. The *Senegal region*, or western Africa, within the limits of the zone. How far this region should extend into the interior, cannot, in the present state of our acquaintance with it, be determined; and, indeed, the botany of the whole region is almost unknown. Amongst the plants collected by those who have visited the coast or the Cape Verd isles, which I have included in the region, are 11 Labiatae

belonging to 7 genera; and amongst these the *Leucas Martinicensis* and *Leonurus sibiricus* may possibly have become naturalised from Asia. The number of endemic species is 3.

2. The *Abyssinian region*, on the east side of Africa, is at a considerable distance from the west coast, but the botany of the intermediate space being totally unknown, no botanical region can be traced. The limits of the Abyssinian one are vague, and the botany of it is chiefly known by the plants brought by Salt, with a few collected by Bruce, and existing in Mr. Lambert's herbarium. M. Fresenius also shewed me the Labiatae collected by Dr. Rüppell, many, of course, the same as Salt's, with some additional ones not yet published. From their number I have included in my enumeration a fine *Pycnostachys*, but had not time to take any note of the others. The total number of Labiatae in the region stands therefore at present at 13, belonging to 10 genera, of which *Plectranthus*, *Meriandra*, and *Leucas*, are eastern; *Micromeria*, *Salvia* (*Plethiosphace*), and *Nepeta*, from the more northern zones; and *Lasiocorys*, from the Cape; the *Ocimum* is also allied to a Cape species. *Otostegia* is almost exclusively Abyssinian, and *Pycnostachys* is represented by another species in Madagascar. Of the 13 species, 10 are endemic.

3. The *Arabian region* consists of the Arabian peninsula, the greater part of which is a hot desert, producing very few Labiatae. There are however mountains where Forsköhl found *Ocimoideæ*, &c., and which would probably furnish several new Labiatae belonging to that tribe and other East Indian forms. We possess at present records of 26 species, comprised in 16 genera, mostly East Indian, and none of them peculiar to the region. The number of endemic species is 8.

4. The *Hindoo region* extends from the Gulf of Ormus to the Burmese frontier, and from the Indian Ocean to the foot of the Himalayas. It contains, as at present ascertained, 25 genera and 113 species of Labiatae, and probably many more in the Nielgherry hills. The most numerous genera are *Leucas*, *Ocimum*, *Plectranthus*, *Coleus*, *Orthosiphon*, *Pogostemon*, *Dysophylla*, and *Anisomeles*. The endemic species are 77.

5. The *Burmese region*, including the Burmese empire within the limits of the zone, with Pegu and Siam, partakes of the general character of the East Indian Flora, but, being more elevated than the Hindoo region, has more of the Himalayan Labiatae, and one genus (*Cymaria*) not found elsewhere. It is, however, so little explored, that but 41 species, belonging to 18 genera, have been gathered there. Of these, 16 species are endemic.

6. The *Cochinchinese region*, between the Burmese region and the Chinese Sea, is only known by Loureiro's Flora; but he appears to have had so little acquaintance with the well-known genera to which he refers so many of his species, that his plants are almost all so many puzzles. He enumerates 38 Labiatae, but some of these are evidently Scrophularineæ or Verbenaceæ, and of the remainder only 4 can with any tolerable certainty be referred to the genera *Ocimum*, *Orthosiphon*, *Dysophylla*, and *Leonurus*.

The Philippine and Marian islands should form another region, but their botany is almost unknown.

7. The *Sandwich region*, consisting of the islands of that name, although included in my table in the New World, as being nearest to the American continent, are yet at a considerable distance from it, and have a very peculiar Flora. They possess 20 Labiatæ, of which the *Plectranthus parviflorus* alone is found in the Oceanic and North Australian regions; the other 19 are endemic, belonging to two genera, *Phyllostegia* and *Stenogyne*, both of them peculiar to these islands.

8. The *Hot Mexican region* consists of the *tierra caliente* of that state. I have referred to it 38 species of Labiatæ, belonging to 8 genera, but with some hesitation, as most of them are from Moçino and Sessé's specimens in Mr. Lambert's herbarium, the localities of which are very vaguely designated. The greatest number belong to *Hyptis* and *Salvia* (*Calosphace* and *Microsphace*), and many of them common to the Havannah region. 14 species are endemic.

9. The *Havannah region* comprehends all the West Indian islands, except the northern Bahamas and the isle of Trinidad, and others lying along the South American coast. The botany of the hills of Cuba and Jamaica is but little known, and therefore the number of Labiatæ cited is probably much less than it will hereafter be found to be. I have enumerated 35 species, belonging to 11 genera, most of them however to *Hyptis* and *Salvia* (*Calosphace* and *Microsphace*). There are also three *Scutellariæ*, of which one belongs to the tropical section *Heteranthesia*. The region contains 9 endemic species.

VI. The *ÆQUINOCTIAL ZONE* lies in Africa, from the limits of the north tropical zone to 5° or 6° south latitude, it then includes the Indian Archipelago; and in America extends from the Carribean Sea to the Amazon river. In this zone the American portion is the best known, and, moreover, being in a great measure very elevated, is rich in Labiatæ. The mountains of this part of Africa are unknown, and those of the Indian islands nearly so; consequently, the proportion of species in the Old and New World is reversed, for out of 157 species known in the zone, 90 grow in America and only 74 in the Old World. Of these four are common to both hemispheres, being the same as those mentioned under the last zone. The principal genera are *Hyptis*, *Salvia*, and *Gardoquia*, in the New World, *Ocimoideæ* and *Leucas*, in the Old. The little-known genera, *Mesona*, *Achyropermum*, and *Hoslundia*, are exclusively, or almost exclusively, found in the zone, which has 105 endemic species,—45 in the Old, 60 in the New World.

This zone comprehends Schouw's 14th, or tropical African; 9th, or Polynesian; 10th, or higher Javanese; the greater part of his 15th, or Cactus and Piperaceous; and his 17th, or Cinchona regions. I have divided it into six regions, which nearly correspond with his.

1. The *Guinea region*, or West Africa, including Guinea and Congo. How far it should extend into the interior is not known. The number of Labiatæ known is 17, all gathered near the coast. They belong to 10 genera, of which *Ocimum* is the most numerous.

Three belong to the American genus *Hyptis*, and of these, two (*H. suaveolens* and *pectinata*) are evidently naturalised from thence; one, *Plectranthus*, belongs to a section (*Platostoma*) peculiar to this region, and *Hoslundia* is exclusively African. The number of endemic species is 13.

2. The *Zanguebar region*, or East Africa, within the same limits, is still less known. Two species of *Ocimum* are the only Labiatae from the region that I am acquainted with.

3. The *Polynesian region* comprehends the whole of the Indian Archipelago, with the Malayan peninsula. It will probably be usefully subdivided when any thing is learnt of the vegetation of the three principal islands, Sumatra, Borneo, and New Guinea. At present the only data we have are the Java plants of Blume and others, the Penang and Singapore plants, those introduced into the Calcutta garden as from the Moluccas, and the Timor plants described by De Caisne. Amongst these are 62 Labiatae, belonging to 22 genera, the most numerous of which are *Coleus*, *Ocimum*, and other *Ocimoideae*, *Leucas*, *Anisomeles*, and *Gomphostemma*. *Mesona* (with which I am unacquainted) has not been found elsewhere, and *Achyrospermum* is nearly exclusive. The endemic species amount to 31.

4. The *Panama region* comprehends the isthmus of that name and the low land of Columbia and Caraccas, with the island of Trinidad. I am uncertain of the propriety of considering this as a separate region. Perhaps the Isthmus should be reckoned as a part of the Hot Mexican region, and the coast of the Carribean Sea be joined with the Havannah or West Indian region. As it is, I have enumerated 17 species, belonging to 6 genera, chiefly *Hyptis*, *Ocimum*, and *Salvia*.

5. The *Quito region*, containing the mountainous tract forming the old kingdom of New Granada, now the republics of Bolivia and Colombia, possesses, as far as hitherto known, 67 Labiatae, belonging to 12 genera, but chiefly to *Salvia*, *Gardoquia*, and *Scutellaria*. Amongst the others the most remarkable is an *Orthosiphon*, of which the other species are all East Indian. There are 56 endemic species in the region.

6. The *Guiana region*, lying chiefly between the Orinoco and the Amazon rivers, contains much mountainous country of which the vegetation is almost unknown. An expedition, however, under the superintendence of M. Schomburgk, is now engaged in exploring a part of it, and will, it is hoped, furnish data for sketching the general character of the vegetation. In the mean time, those travellers who have penetrated but a little distance from the coast have found 23 Labiatae, belonging to 7 genera, but the greater number of species to *Hyptis*, *Salvia*, and *Scutellaria*. Of these, 2 are endemic.

VII. The SOUTH TROPICAL ZONE crosses South America at its greatest breadth from the Amazon river to the tropic of Capricorn, includes Africa, from Congo and Zanguebar to the same tropic and the tropical part of Australia, with the islands of St. Helena, Madagascar, and those forming the oceanic group. Although, from the comparative proximity, I have included Australia in the old hemisphere, yet the

excess of Labiatae in the New World in this zone over those of the Old, is much greater even than in the last, for out of 327 species known in the zone, there are 291 in America and but 43 in the Old World. Of these seven are common to both hemispheres; they are either a few straggling *Hyptides* carried from the New to the Old World, or the four above-mentioned common tropical species carried from the Old to the New. The characteristic genera of the zone are still *Hyptis* and *Salvia*, in America, *Ocimoideæ* and *Anisomeles*, in the Old World. The number of endemic species is 245, of which 25 in the Old World, and 220 in the New.

This zone contains Schouw's 11th, or Oceanic, 18th, or Escalonian and Calceolarian, and 20th, or Brazilian regions, with a portion of his tropical, African, and Polynesian regions. I have divided it into seven regions.

1. The *Helenian region* consists of the single island of St. Helena, placed between Africa and America, but with a peculiar Flora of its own. The only Labiatae known, however, is the *Stachys arvensis*, common to Europe, to North Africa, and to tropical America.

2. The *Mozambique region*, by which name I have designated that part of Africa which is contained within the zone. It should probably be divided into two, a western and an eastern one, but it is almost wholly unknown. The eastern portion comprehends the coast of Mozambique, from the southern part of which we have 5 Labiatae,—3 *Ocima*, a *Leucas*, and a *Leonotis*.

3. The *Madagascar region*, or the islands of Madagascar, Mauritius, and Bourbon. The mountains of Madagascar have of late been partially visited by Messrs. Bojer, Lyall, and others; and amongst the rich collections there made we have 30 Labiatae, included in 15 genera, chiefly *Ocimoideæ*. The genus *Tetradenia* has not been found elsewhere. *Achyrospermum* has other species in Polynesia; *Pycnostachys* has one in Abyssinia. The other genera are East Indian. There are 18 endemic species in the region.

4. The *Carpentarian region*, or tropical Australia, has as yet been very partially visited. The Labiatae found there are of East Indian rather than Australian genera. They consist of 8 genera, 14 species, of which 6 are endemic.

5. The *Oceanic region* consists chiefly of the Society and Friendly islands, and the Marquesas. These islands are small and contain but few Labiatae; for although frequently visited, but two species have been gathered there,—the *Plectranthus parviflorus*, found also in the Sandwichian and the Carpentarian regions; and the *Leucas decemdentata*, also growing probably in the Polynesian region.

6. The *Lima region*, comprising the chain of the Andes from Chili to Bolivia, is not so rich in Labiatae as might be expected from the character of the country. Sixty species have been found there, belonging to 10 genera, the greater portion to *Hyptis*, *Salvia*, and *Gardoquia*. The three *Bystropogons* belong to a section *Minthostachys*, peculiar to the region. The total number of endemic species is 47.

7. The *Brazilian region* contains the whole of that empire except

the province of Saint Paul, and others to the south of it. It is of considerable extent and rich in Labiatæ, containing, even in the present state of our knowledge, 17 genera and 235 species, of which 172 are *Hyptides*, and 16 others belong to three genera, *Eriope*, *Marsypianthus*, and *Peltodon*, scarcely differing from it, and nearly exclusively Brazilian. The other principal genera are *Salvia*, *Ocimum*, *Keithia*, and *Glechon*, of which the two last are chiefly Brazilian. There are 171 endemic species.

VIII. The SOUTH HOT ZONE consists of extratropical Africa and Australia, New Zealand, and South America from the tropic of Capricorn to Chiloe and Port St. Antonia. The extent of land it occupies is much smaller than in the case of any of the preceding zones, but the South American and African portions are tolerably rich in Labiatæ. The total number in the zone is 231, of which 131 in the Old, and 104 in the New World. The number of genera is 32, of which 7, belonging to *Prostanthereæ*, are either exclusive to the Australian portion of this zone, or extend only into the adjoining Diemenical region. The number of species common to the two hemispheres in the zone is 3; the number of endemic species 179, of which 115 in the Old World, and 64 in the New.

The South Hot zone comprehends Schouw's 23d, or *Stapelia*, 24th, or *Eucalyptus* and *Epacrideous*, 25th, or New Zealand, and 21st, or frutescent *Synanthereous* regions; which, with the addition of Chili, correspond respectively to the six following ones:

1. The *Cape region*, or extratropical South Africa, should perhaps not extend quite so far north as the tropic of Capricorn, for the plants of Delagoa Bay, which is without the tropic, are, from the collections made there by the late Mr. Forbes (collector to the Horticultural Society), evidently nearer to the tropical than to the Cape Flora; I have therefore included them in the preceding zone. The true Cape region has a peculiar Flora, tolerably rich in Labiatæ, as we have from thence (including Ecklon and Zeyher's collections) 71 species, belonging to 12 genera, of which by far the richest are *Salvia* (*Hymenosphace*, *Heterosphace*, and *Plethiosphace*) and *Stachys* (chiefly *Ambleia*). There are besides 5 each of *Plectranthus* and *Mentha*, and 4 *Leonotis* and *Lasiocorys*, belonging chiefly to this region. The number of endemic species is 65.

2. The *Australian region*, or extratropical Australia (exclusive of Van Diemen's Land), has, as is well known, a very remarkable Flora. The greater number of Labiatæ form the tribe of *Prostanthereæ*, which is found exclusively in this and the Diemenical regions. The few remaining species belong to widely spread genera. The total number of genera is 14, and of species 57, of which 49 are endemic.

3. The *New Zealand region* consists of the two islands of New Zealand. In the considerable collections made there lately by Messrs. Allan and Richard Cunningham, there is but one Labiata, the *Micromeria Cunninghamii*, very remarkable as belonging to the American section *Hesperothymus*, although the species be endemic.

4. The *Chili region* comprehends the western declivity of the

Andes within the zone. It has been much visited of late, but though mountainous and hot it possesses few Labiatae. The total number of species found there is 21, of which the greater number belong to the cosmopolitan genus *Stachys* and to the West American *Sphacele*. The number of endemic species is 12.

5. The *Megapotalamical region* extends over that part of the zone which lies east of the Andes, comprehending the southern provinces of Brazil and the Argentine republic. The collections of Sello, A. de St. Hilaire, and others, have considerably added to the Labiatae of this region, but there remain, no doubt, very many yet to be discovered. We now possess 86 species, belonging to 12 genera, of which the most numerous are *Hyptis*, *Salvia* (*Calosphace*), *Cunila*, *Glechom*, and *Keithia*. The three latter, as also *Peltodon*, have their greatest number of species in this region. The total number of endemic species is 52.

IX. The SOUTH TEMPERATE ZONE takes in but two small regions,—the *Patagonian*, in America, in which no Labiatae have as yet been found; and the *Diemenical region*, or Van Diemen's Land, which possesses 12 species, belonging to 8 genera. Of these two are Australian, *Prostanthereae*, and the others widely spread genera, which are also found in Australia. The endemic species in the region amount to 6.

X. The SOUTH COLD ZONE is confined to the *Magellanic region*, or Terra del Fuego and Falkland isles, where there are no Labiatae; and in the ANTARTIC ZONE, no land has as yet been found with any certainty: I have therefore omitted both these zones in my table.

With regard to the *Stations* of Labiatae, too little is known of the greater number to enter into much detail. Taking the 16 stations enumerated by De Candolle, it may be generally said that there are no *marine*, *subterranean*, *parasitical*, or *epiphyteous* species, but few *aquatic* (ex. the verticillate *Dysophyllae*), *maritime* (ex. *Stachys maritima*, *Hyptis graveolens*, &c.), or truly *alpine* species (*Nepeta nivalis*, *thibetica*, *Horminum pyrenacium*, &c.); but that Labiatae are more or less abundant in all other stations.

IN the DISTRIBUTION of Labiatae INTO GENERA, I fear I shall by many be accused of inconsistency in the importance I have attributed to the characters I have selected on different occasions, but this appeared to me unavoidable; for, although, as a general rule, certain characters are of an order superior to others, yet, in detail, there are too many exceptions in nature to allow a graduated scale of characters to be drawn up with any exactitude. Take an instance from one of those of the greatest importance, the entire or 4-lobed ovarium, a distinction

which, with scarcely any exception, draws a line between two very extensive and natural families the Verbenaceæ and Labiatæ. Apply the same rule to Boragineæ, and you must separate *Heliotropium* from *Cynoglossum*, *Cynoglossum* and *Echinospermum* from *Anchusa* and *Myosotis*, when a series of species might be selected from all these genera so near to one another in habit and other characters as to tempt one at first sight to consider them as forming but one genus.

If I have, therefore, for example, on some occasions taken differences in the calyx, in the anthers, &c., as generic distinctions (the anthers of *Sphacele* and *Stachys*, the calyx of *Thymbra* and *Melissa*); at others considered them merely as sectional, or even specific distinctions (the anthers in *Melissa*, the bilabiate calyx in *Stachys menthæfolia*), it has been because, in the one case they appeared to me constantly accompanying differences in facies and other characters, and at other times at variance with them. Besides which, I have always considered, that, although certainly we do observe certain groups of plants more nearly allied to each other than to any others, and distinguished from their several affinities by a sort of hiatus, yet even now, many as are the species which remain to be discovered, it is often very difficult to say between which two species the hiatus is most marked, and the more plants we discover the more are these hiatuses filled up. A genus, therefore, has seldom any real existence in nature as a positively determined group, and must rather be considered as a mere contrivance for assisting us in comparing and studying the enormous multitude of species, which, without arrangement, our minds could not embrace.

But although our genera be not in nature, yet the nearer we follow what is in nature in grouping our plants the more useful is our labour. Whenever two or more species resemble each other by all those characters which experience has shewn us to be important, they should form a group of the lowest order. Where several groups resemble each other closely, but differ in some character of an order rather higher than those with which we separate species, they form a group of a superior order; and these again form groups of a third order, and so on, till we arrive at the general group *Plants*; but to which of these orders of groups we give the name of *genera*, and to which those of *order*, *tribe*, *section*, &c., is a matter of mere convenience.

If all existing plants were known, and it were always possible to say which of the 1st, 2d, 3d, &c., order a group belongs, then it would be absolutely necessary to take care that the name *genera*, for instance, should always be given to groups of the same order; but in the present state of the science, at least, this is impossible. Take, for example, the group of *Nepeteæ*, which is very natural because a very marked one, offering (as at present known) no intermediates with others in regard to its essential characters, it comprises two groups distinguished from each other by slighter and more variable characters. One of these comprehends 4 of a still lower order; of these, *Nepeta* comprises 8 groups of a fourth order; and another (*Dracocephalum*) contains 5, which are about of the same value as the 8 of *Nepeta*, but which might be distributed into two or three intermediate groups. It would be just

as *natural* to consider the whole of these as one *genus*, consisting of 2 *subgenera*, 7 *sections*, and 18 *subsections*; or as 2 *genera*, one comprehending 2 *sections*, and the other 4 *subgenera* and 16 *sections*; or, as I have done, as a *tribe*, containing 2 groups, one with a single *genus*, divided into 2 *sections*, the other with 4 *genera*, 2 of which are subdivided into *sections*; or if each of these *sections* were considered as a *genus*,—provided that in all cases no groups be collected into one of a superior order, that are not more like each other than to any other group.

Wherever, therefore, natural affinities appeared to leave it indifferent which of two courses I should pursue, I have, with few exceptions, considered as *sections* such groups as are distinguished by characters of no greater importance than stem, foliage, or inflorescence; and all characters taken from the organic structure of the parts of fructification have been considered as generic.

I have, however, made some exceptions; *Salvia*, for instance, according to the above rules, ought to have formed 5 or 6 *genera*, but I have considered that in this case the advantage in point of mere uniformity (for the natural grouping remains the same), would be more than counterbalanced by the necessity of changing more than 200 names. On the other hand, were it not for the cumbersome extent it would give to the *genus* so formed, it would, perhaps, have been better to have considered nearly the whole of the *Melissineæ* as one *genus*. For it is but a very vague character that separates *Micromeria* and *Gardoquia* from *Melissa*, and *Hedeoma* from *Keithia*, although the distinctions are to a great extent very natural.

I have been blamed for joining *Glechoma* with *Nepeta*, and *Betonica* with *Stachys*, and to those who are acquainted with the European species only, the distinctions in each case appear marked enough to warrant their adoption as separate *genera*; but in taking into account all the species now known, it will be found that, excepting inflorescence, no tangible character nor difference in habit can be found, and that the inflorescence is far too variable in both the cases to enable the drawing one marked line. The *sections* that I have established run into one another in a manner which would be very inconvenient in the case of *genera*.

But if, in regard to *genera*, I have laid down as a principle that the question is not whether such a group is a *genus* or *section*? but whether it would be *most convenient to rank* such a group as a *genus* or as a *section*? on the other hand there seems still every reason, in the case of species, to consider that it has a really distinct existence in nature as a group of individuals, varying from each other only within the limits of individuals descending from one common stock; and the question is therefore here, *are* two plants of the same species or not? Of this it is seldom we can obtain positive evidence; we must reason by analogy—we must take into account all the variations likely to be caused by soil, climate, and other external agents—by cultivation, by hybridity, by disease, &c., as well as by the age and period of developement of the specimen before us—we must consider whatever circumstantial evidence we can deduce from station, from

abundance of individuals resembling each of the two specimens before us, or from any other source we can get at; and from these data we must then form our judgment. This judgment may indeed be erroneous, even when pronounced by the most experienced botanist possessed of the greatest number of data; how much more so must it be when a young botanist, scarcely acquainted with the commonest plants of his own neighbourhood, sits down with a scanty library in a botanical garden, and publishes as new every specimen that does not exactly coincide with the descriptions of the plant whose name he finds appended to his specimens; or if, studying the wild plants of his own country, having no general herbarium, and therefore ignorant of the various forms one species may assume in other countries, he considers as specific distinctions any accidental variations to which a continuation of the circumstances which originally occasioned them may give, in his neighbourhood, a certain degree of permanency.

I have been led into these observations as a sort of answer to those who may consider me presumptuous in setting up my opinions, formed, in a great measure, from dried specimens, against the observations of local botanists and directors of botanical gardens, often of great merit, who have studied the plants living. If, for instance, the principles upon which M. Host added 37 *Menthæ* to the Flora of Vienna were to be followed throughout, the number of Labiatae now to be described would rather be 17,000 than 1700; these 17,000 descriptions would most of them, a hundred years hence, have to be replaced by as many others, and the whole would soon become a complete chaos. Already many of the original plants upon which M. Host established his species, and most of their descendants, no longer possess his distinctive characters; and if this be the case with M. Host, how much more must it be with those who, with all his national pride in the number of species comprised in his Flora, have none of his talent, and carry to so high a degree the sometimes mercenary and always foolish vanity of tacking so many *nobis* to botanical names.

Some genera of Labiatae are peculiarly liable to this multiplication of species. Very hardy and abundant in those parts of Europe where the real number of species has long been well known, the same species, growing in a great variety of situations,—in the dry roadside dust or in marshes, or even water—in shady woods and in open commons—long cultivated in gardens, and carried out to all parts of the world,—not only casual varieties, but more or less permanent races, have been formed in the *Menthæ*, *Thymi*, *Stachydes*, &c., which it is impossible with any certainty to distinguish from real species; and any disposition to make species may readily be indulged in to almost any extent. Hybridity, also, that great obstacle to the discrimination of species, is not unfrequent in *Mentha* and *Thymus*, and probably in some other genera; although in the greater number of Labiatae, fecundation taking place at the moment of the expansion of the corolla, and the parts of fructification being more or less concealed, hybridity only ensues under very peculiar circumstances.

Another great difficulty that occurs in long known variable genera in distinguishing the species, is the impossibility of judging, from the

numbers seen in herbaria, of the real proportion in the number of intermediate forms to that of each of two common forms which they connect. If a whole tract of country be covered with individuals of two distinct forms, with here and there some accidental intermediate, it is these intermediates that the collector will seize upon with avidity, almost neglecting the normal states, and, at any rate, neglecting to record the fact of this great disproportion.

Before quitting this subject, I have only to add, that in numerous instances I have formed my own judgments with very great doubt, and may have fallen into error much more frequently than I am aware of; but in every instance I was obliged to come to *some* decision, sometimes with very imperfect, sometimes with superabundant and contradictory data.

The **CONSPECTUS GENERUM**, which follows, and the *Conspectus Specierum*, at the head of the numerous genera, are intended as artificial keys, to assist the determination of Labiatae, and therefore the most striking characters are given necessarily rather more absolutely than they exist in nature, and I fear they may sometimes lead astray. I have given them merely in the hope that in the generality of cases they will be found as useful as they continually prove to myself, in naming collections for my friends.

CONSPECTUS TRIBUUM.

TRIB. I. OCIMOIDEÆ. Stamina declinata.

TRIB. II. MENTHOIDEÆ. Stamina recta vel divergentia. Corollæ tubus calyce vix longior, limbo subæqualiter 4-5-fido.

TRIB. III. MONARDEÆ. Stamina adscendentia, superiora abortiva vel antheris connatis, inferiora antheris nunc linearibus connatis, nunc connectivo filiformi dimidiatis vel loculis disjunctis. Corolla bilabiata.

TRIB. IV. SATUREINEÆ. Stamina recta, divergentia vel vix adscendentia, inferiora longiora. Antheræ non dimidiatæ. Corollæ tubus intus exannulatus, calyce vel bracteis imbricatis vix longior, limbo subbilabiato laciniis omnibus planis.

TRIB. V. MELISSINEÆ. Stamina adscendentia, inferiora longiora. Corolla bilabiata, laciniis planis (labio superiore rarissime galeato). Calyx sæpissime 13-nervius, bilabiatus.

TRIB. VI. SCUTELLARINEÆ. Stamina adscendentia, inferiora longiora. Corolla bilabiata, labio superiore galeato. Calycis labium superius integrum vel truncatum.

TRIB. VII. PROSTANTHEREÆ. Stamina divergentia vel adscendentia, inferiora longiora vel abortiva. Antheræ sæpe dimidiatæ. Corolla tubo brevi fauce campanulata, laciniis planis subbilabiatis dispositis. Achenia coriacea, reticulata, stylo subpersistente. — Omnes Australasicæ.

TRIB. VIII. NEPETEÆ. Stamina superiora eminentiora.

TRIB. IX. STACHYDEÆ. Stamina adscendentia, inferiora longiora. Corolla bilabiata. Calyx non 13-nervius. Achenia sicca sublævia.

TRIB. X. PRASIEÆ. Stamina adscendentia, inferiora longiora. Corolla bilabiata. Achenia carnosæ.

TRIB. XI. AJUGOIDEÆ. Stamina adscendentia e labio superiore corollæ brevissimo vel bifido declinato sæpius longe exserta, vel achenia valde reticulato-rugosa.

CONSPECTUS GENERUM.

TRIBUS I. OCIMOIDEÆ.

STAMINA declinata. Corolla subbilabiata, lobis 4 superioribus planis subæqualibus, vel binis supremis coalitis, infimo declinato plerumque difformi, plano vel sæpius concavo cymbæformi vel saccato. Antheræ defloratæ sæpissime patellæformes.

* *Corollæ laciniae subæquilongæ, inferiore angustiore declinata subplana.*—*Tropicæ utriusque orbis.*

I. OCIMUM. Calyx fructifer deflexus, dente supremo ovato maximo sæpius decurrente. Verticillastri 6-flori, rarius sub-10-flori.—Gerontogea et Americana.

1. OCIMODON. Filamenta superiora basi denticulo-appendiculata.
2. HIEROCIMUM. Filamenta superiora basi fasciculo pilorum appendiculata.
3. GYMNOCIMUM. Filamenta omnia nuda.

II. GENIOSPORUM. Calyx fructifer suberectus vel declinatus, basi sæpius transverse rugosus, dentibus irregularibus supremo non decurrente. Filamenta nuda. Styli lobi subulati. Verticillastri multiflori.—Asiatica.

III. ? MESONA. Calycis labium superius divisum, inferius minimum inflexum. Stamina breviora basi appendiculata.—Javanicæ.

IV. ACROCEPHALUS. Calyx suberectus, dentibus 4 inferioribus in labium integrum vel 4-dentatum coalitis. Verticillastri capitati.—Gerontogei.

V. MOSCHOSMA. Calyx fructifer declinatus, dente supremo ovato non decurrente. Corollæ tubus inclusus. Styli lobi brevissimi. Verticillastri pauciflori, secundi, in racemulis axillaribus sæpius dispositi.—Gerontogea.

VI. ORTHOSIPHON. Calyx fructifer deflexus, dente supremo ovato. Corollæ tubus rectus exsertus. Stylus apice cum stigmate capitatus.—Habitus Ocimi.—Gerontogei cum uno Americano.

☞ In POGOSTEMONE et DYSOPHYLLO Menthoidearum, stamina subdeclinata.

** *Corollæ lacinia infima elongata, concava.*—*Tropicæ Gerontogææ.*

☞ Vide MESONA et ORTHOSIPHON supra.

VI*. HOSLUNDIA (p. 706). Stamina superiora abortientia. Calyx fructifer baccatus.—Africanæ.

VII. PLECTRANTHUS. Calyx fructifer 5-dentatus, non spinosus, ore aperto. Filamenta libera.—Gerontogei.

1. GERMANEA. Calyx fructifer declinatus, dente supremo ovato, 4 inferioribus angustioribus. Corolla calcarata.

2. COLEOIDES. Calyx fructifer declinatus, dente supremo ovato, 4 inferioribus angustioribus. Corolla ecalcarata.

3. HETEROCYLIX. Calyx fructifer declinatus, bilabiatus, labiis subintegerrimis. Corolla ecalcarata.

4. MELISSOIDES. Calyx fructifer declinatus, bilabiatus, $\frac{3}{4}$. Corolla calcarata.

5. ISODON. Calyx fructifer declinatus, dentibus æqualibus, vel $\frac{3}{4}$. Corolla ecalcarata.

6. PYRAMIDIUM. Calyx fructifer erectus, tubulosa.

7. AMETHYSTOIDES. Calyx fructifer erectus, campanulatus.

VIII. COLEUS. Calyx fructifer dentatus non spinosus ore aperto. Filamenta monodelpha.—Gerontogei.

1. CALCEOLUS. Verticillastri 6-10-flori. Calyx fructifer reflexus, fauce intus villosa.

2. AROMARIA. Verticillastri densi subglobosi, multiflori. Calyx fructifer vix declinatus, fauce intus nuda.

3. SOLENOSTEMON. Verticillastri laxi, multiflori. Calyx fructifer declinatus, fauce intus nuda.

IX. ANISOCHILUS. Calyx fructifer clausus. Verticillastri spicati.—Asiaticæ.

X. ŒOLLANTHUS. Calyx truncatus, fructifer basi circumscissus.—Gerontogæus? in America cultus.

XI. PYCNOSTACHYS. Calycis fructiferi dentes subulato-spinosi. Verticillastri spicati.—Africanæ.

☞ COLLINSONIÆ diandræ distinguuntur ab Ocimoideis staminibus longe divaricatis.

*** *Corollæ lacinia infima substipitata, basi transverse subcallosa, dein saccata, per anthesin abrupte dejecta.*—*Fere omnes Americanæ.*

XII. PELTODON. Calycis dentes subulati apice peltati.—Habitus *Hyptidum capitatarum*.—Brasilienses.

XIII. MARSYPIANTHUS. Achenia concavo-cymbiformia, margine membranaceo involuto fimbriato.—Habitus *Hyptidum capitatarum*.—Americana tropica.

XIV. **HYPTIS.** Calyces non peltati, fructifer non bilabiatus. Achenia non cymbiformia. — Americanæ præcipue Brasilienses vel æquinoctiales cum paucissimis Gerontogeis tropicis.

* *Bracteæ numerosæ adpressæ.*

1. **GYMNEIA.** Verticillastri multiflori, spicati vel globosi, recti. Calyces fructiferi apice recurvi.

2. **SPICARIA.** Verticillastri multiflori, spicati vel inferiores subremoti. Calyces fructiferi recti.

3. **APODOTES.** Capitula subdistincta, sessilia. Verticillastri omnes remoti.

4. **PLAGIOTIS.** Capitula pedunculata. Calyx ore incurvus, dentibus bracteisque ovatis.

5. **CYRTA.** Capitula pedunculata. Calyx recurvus, dentibus bracteisque subulatis.

6. **CYANOCEPHALUS.** Capitula pedunculata, globosa. Receptaculum subnudum. Calyx basi glaber, dentibus molliter villosissimis. Bracteæ subulatæ.

7. **ERIOSPHÆRIA.** Capitula semiglobosa. Receptaculum villosum. Calyx lanato-villosissimus, dentibus brevissimis rectis. Bracteæ lanceolatæ vel lineares.

8. **OCEPHALUS.** Capitula ovoidea. Calyx campanulatus, dentibus subulatis mollissime villosis. Bracteæ ovatæ.

9. **TRICHOSPHÆRIA.** Capitula globosa. Calycis dentes filiformi, plumosi, tubo multoties longiores.

10. **XANTHIOPHÆA.** Capitula globosa. Calyx fructifer inflatus, ore contracto, dentibus rigidis subulatis.

11. **CEPHALOHYPTIS.** Capitula semiglobosa vel demum globosa. Calyx campanulatus, rectus, glaber vel villosus; nec lanatus, nec inflatus, nec dentibus mollissime villosis. § 1. *Gnidiæfoliæ*, 2. *Lavandulaceæ*, 3. *Pedunculosæ*, 4. *Latibracteatae*, 5. *Marrubiastræ*, 6. *Genuinæ*, 7. *Brachyodontes*, 8. *Xylo-dontes*.

12. **POLYDESMIA.** Capitula racemoso-paniculata. Bracteæ ovatæ vel lanceolatæ. Calyx fructifer, dentibus setaceis strictis vel lanceolatis.

** *Bracteæ laxæ setaceæ, vel minutæ.*

13. **MESOSPHÆRIA.** Capitula pauciflora, paniculata. Calyx oblique campanulatus, fauce intus subvillosa.

14. **PECTINARIA.** Cymæ fructiferæ elongatæ, paniculatæ. Calyx tubulosus, fauce intus villosa.

15. **MINTHIDIUM.** Verticillastri axillares.

16. **BUDDLEIODES.** Cymæ subcapitatæ, paniculatæ. Calyx intus nudus.

17. **UMBELLARIA.** Cymæ umbellæformes, axillares. Calyx intus nudus.

18. **SIAGONARRHEN.** Cymæ dichotomæ racemosæ, vel diffformes paniculatæ. Calyx intus nudus.

19. **HYPENIA.** Flores solitarii, in paniculam glaberrimam glaucam dispositi.

XV. **ERIOPE.** Calyx florifer æqualis, fructifer auctus bilabiatus $\frac{3}{2}$. — Brazilianæ.

**** *Corolla bilabiata 2-3. Stamina tubo inclusa.*

XVI. **LAVANDULA.** Gerontogæ temperato-calidæ et subtropicæ.

TRIBUS II. MENTHOIDEÆ.

Corolla subcampanulata vel infundibuliformis, tubo calyce brevior vel vix longior, limbo 4-5-fido, lobis subæqualibus; rarius subbilabiata. Stamina distantia, recta vel divergentia, nec per paria approximata, subæqualia vel inferiora longiora, superiora interdum abortientia. Antheræ confluentim uniloculares vel subparalleliter biloculares.

* *Antheræ terminales, etiam juniores confluentim uniloculares. Stamina subdeclinata. — Gerontogæ subtropicæ.*

XVII. POGOSTEMON. Corollæ lacinie 3 superiores approximatae, inferiore declinato.

XVIII. DYSOPHYLLA. Corolla fere regularis.

** *Antheræ versatiles, loculis divaricatis demum confluentibus. Stamina interdum subadscendentia. — Gerontogæ subtropicæ.*

XIX. ELSHOLTZIA. Corolla tubulosa, limbo brevi subbilabiato. Gynophori lobi ovario breviores.

1. APHANOCHILUS. Spicæ æquales vel folia floralia lanceolata. — Asiaticæ.

2. CYCLOSTEGIA. Spicæ imbricatæ, foliis floralibus connatis. — Indica.

3. ELSHOLTZIA. Spicæ secundæ. Folia floralia, ovata. — Gerontogæ temperata.

XX. TETRADENIA. Corolla regularis. Gynophori lobi ovario longiores. — Madagascariensis.

*** *Antheræ biloculares, loculis parallelis. Corolla in tribu normalis.*

XXI. COLEBROOKIA. Calyx fructifer papposus, acheniis adherens. — Indicæ.

XXII. PERILLA. Calycis fructiferi dens supremus minimus. Stylus profunde bifidus. — Indica.

XXIII. ISANTHUS. Achenia majuscula, reticulato-rugosa. — Americanus.

XXIV. PRESLEA. Calyx 4-dentatus. — Mediterranea.

XXV. MENTHA. Calyx 5-dentatus, non papposus. Achenia lævia. Stamina fertilia 4. — Cosmopolitanæ.

XXVI. LYCOPUS. Stamina superiora abortiva. — Boreales Amphigei cum uno Australasico.

† Satureineæ plures ab hac Menthoidearum Sectione parum diversæ.

**** *Antherarum loculi disjuncti, connectivo filiformi.*

XXVII. MERIANDRA. — Gerontogæ subtropicæ.

TRIBUS III. MONARDEÆ.

Corolla bilabiata. Stamina superiora abortiva vel si fertilia antheris linearibus connatis, inferiora fertilia adscendentia. Antheræ lineares, nunc confluentim uniloculares connatæ, nunc dimidiatæ, liberæ vel postice connatæ, connectivo lineari in filamentum articulado apice loculum fertilem ferente, postice truncato vel sæpius producto filiformi elevato vel loculum alterum, nunc difformem cassum, nunc fertilem ferente.

* *Connectivum filiforme in filamentum articulatum.*

XXVIII. SALVIA. Connectivum sub insertione productum, postice nudum vel loculiferum.

* *Connectiva postice porrecta, loculum difformem cassum vel minorem ferentia, extremitate connexa vel approximata. Corollæ tubus sæpe annulatus, limbi lobi laterales plani patentes. — Gerontogæ.*

1. EUSPHACE. Calycis labium superius 3-dentatum, fructifer vix auctum. Corollæ galea erecta. — Mediterraneo-Ponticæ.

2. HYMENOSPHACE. Calycis fructiferi, dentes membranaceo-dilatati. — Mediterraneæ et Capenses.

3. DRYMOSPHACE. Calycis labium superius truncatum fructifer non dilatatum. Corollæ galea falcata. — Gerontogæ temperatæ.

** *Connectiva postice deflexa, abrupte dilatata, extremitate callosa connexa. Corollæ tubus exannulatus, limbi lobi laterales erecti subtorti. — Gerontogæ.*

4. HORMINUM. Calycis labium superius truncatum tridentatum. — Mediterraneo-Ponticæ.

5. ÆTHIOPIS. Calycis labium superius tridentatum, dentibus erectis, supremo sæpius minore. — Mediterraneo-Ponticæ et Centro-Asiaticæ.

6. PLETHIOSPHACE. Calycis labium superius concavum bisulcatum, dentibus 3 minimis conniventibus. — Gerontogæ temperatæ et subtropicæ.

*** *Connectiva postice deflexa, linearia, longitudinaliter connexa vel rarius approximata. — Americanæ.*

7. MICROSPHACE. Styli lobi complanato-dilatati.

8. CALOSPHACE. Styli lobi subulati, superiore sæpe minimo. — § 1. *Micranthæ*. 2. *Brachyanthæ*. 3. *Axillæfloræ*. 4. *Membranaceæ*. 5. *Bracteateæ*. 6. *Erianthæ*. 7. *Longifloræ*.

**** *Connectiva postice remota, porrecta, loculum subconformem ferentia.*

9. ECHINOSPHACE. Folia floralia et bracteæ imbricata, spinosa. — Americana boreali-occidentalis.

10. PYCNOSPHACE. Folia floralia et bracteæ imbricata, mutica. — Americanæ boreali-occidentales.

11. HETEROSPHACE. Folia floralia decidua. Bracteæ subnullæ. Calycis labium superius truncatum tridentatum. — Cosmopolitanæ.

12. NOTIOSPHACE. Folia floralia et bracteæ minuta. Calycis labium superius integrum vel brevissime 3-dentatum, dentibus conniventibus. — Gerontogæ calidæ et tropicæ.

***** *Connectivæ postice remota, deflexa, acuta.*

13. GYMNOSPHERE. Calycis labium superius integrum. — Asiatica calida.

14. HEMISPHERE. Calycis labium superius truncatum tridentatum. — Submediterraneo-Ponticæ.

XXIX. AUDIBERTIA. Connectiva sub insertione non producta. — Americanæ boreali-occidentales.

☞ In MERIANDRA Menthoidearum antherarum loculi disjuncti connectivo filiformi, sed stamina erecta, loculis binis æqualibus.

** *Connectiva parva. Stamina fertilia 2.*

XXX. ROSMARINUS. Calyx bilabiatus 1-2. Filamenta basi dentata. — Mediterraneo-Ponticus.

XXXI. MONARDA. Calyx 5-dentatus. Corollæ labium inferius lineare, apice breviter 3-fidum. — Boreali-Americanæ.

XXXII. BLEPHILIA. Calyx 5-dentatus subbilabiatus, intus fauce nuda. Corollæ labium inferius latum trifidum. — Boreali-Americanæ.

XXXIII. ZIZIPHORA. Calyx intus fauce villosa. Corolla *Blephiliæ*. — Gerontogæ temperatæ præsertim Asiaticæ.

*** *Connectiva parva. Stamina fertilia 4.*

XXXIII*. HORMINUM (p. 727). — Europæum temperatum alpestre.

☞ In SYNANDRA Stachydearum antheræ cohærunt, sed forma diversissimæ sunt.

TRIBUS IV. SATUREINEÆ.

Calyx 5-dentatus, æqualis vel bilabiatus $\frac{3}{2}$. Corollæ tubus exannulatus, calyce vel bracteis imbricatis brevior vel vix longior, limbus subbilabiatus, labio superiore plano integro vel emarginato-bifido, inferiore lobis planis. Stamina recta, divergentia vel vix adscendentia, æqualia vel superiora breviora vel abortiva. Antheræ non dimidiatæ.

* *Stamina fertilia 4. Calyx 10-13-nervius.*

XXXIV. BYSTROPOGON. Calyx æqualis, intus fauce villosa. Frutices, inflorescentia cymosa vel spicata.

1. BYSTROPOGON. Calyx campanulatus. Inflorescentia cymosa. — Canariensis.

2. MINTHOSTACHYS. Calyx tubulosus. Inflorescentia spicata. — Peruvianæ.

XXXV. **PYCNANTHEMUM.** Calyx æqualis vel subbilabiatus, intus nudus. Corollæ labium superius oblongum integrum vel emarginatum. Herbæ, verticillastris multifloris bracteatis. — Boreali-Americana.

— 1. **TULLIA.** Dentes calycini aristati. Verticillastri laxiusculi. Folia plerumque petiolata.

2. **BRACHYSTEMUM.** Dentes calycini mutici. Verticillastri capitulæformes. Folia plerumque sessilia.

XXXVI. **MONARDELLA.** Calycis faux intus nuda. Corollæ laciniae 5, oblongæ vel lineares, subbilabiatis dispositæ. Herbæ, verticillastris magnis globosis bracteatis. — Boreali-Americanæ.

XXXVII. **AMARACUS.** Calycis labium superius erectum integrum, inferius truncatum subnullum vel brevissime bidentatum. Spiculæ membranaceo-bracteatae. — Mediterranei.

XXXVIII. **ORIGANUM.** Calyx subæqualiter 5-dentatus, fauce villosa. Spiculæ late bracteatae laxiusculæ. — Gerontogea temperata.

XXXIX. **MAJORANA.** Calycis limbus fissus, superne integerrimus orbiculatus, margine basi subtus implicatus. Spiculæ imbricatim et late bracteatae. — Mediterraneæ.

XL. **THYMUS.** Calyx bilabiatus $\frac{3}{2}$, fauce villosa. — Gerontogei temperati cum calidis borealibusque nonnullis.

1. **MASTICHINA.** Dentes calycini omnes subulati.

2. **SERPILLUM.** Dentes calycini superiores lanceolati. Folia floralia subconcoloria.

3. **PSEUDOTHYMBRA.** Folia floralia magna, membranacea, colorata.

XLI. **SATUREIA.** Calyx subæqualis, fauce intus subnuda. Corollæ labium superius ovatum. Suffrutices, verticillastris axillaribus vel in capitulum oblongum aggregatis.

1. **SATUREIA.** Verticillastri pauciflori. Bracteæ parvæ vel nullæ. — Mediterraneo-ponticæ et spurie cosmopolitanæ.

2. **TRAGORIGANUM.** Verticillastri multiflori, axillares, bracteati. — Mediterranea.

3. **PYCNOTHYMUS.** Verticillastri oblonge capitati bracteati. — Boreali-Americana.

✻ In MICROMERIIS nonnullis stamina vix adscendentia.

SPHACELE Stachydearum distinguitur calyce ample campanulato, &c.

HEMIGENIA et MICROCORYS Prostanthearum differunt antheris dimidiatis.

** *Stamina fertilia 4. Calyx 15-nervius.*

XLII. **HYSSOPUS.** — Gerontogeus temperatus.

** *Stamina fertilia 2 (inferiora).*

XLIII. **COLLINSONIA.** Corollæ lobi 4, superiores subæquales, inferiore majore dentato vel fimbriato. — Boreali-Americanæ.

XLIV. CUNILA. Corolla tribus normalis. — Americanæ utriusque orbis.

✧ WESTRINGIA Prostanthearum differt staminibus inferioribus abortivis.

TRIBUS V. MELISSINEÆ.

Calyx 13- rarius 10-nervius, 5-dentatus, bilabiatus $\frac{3}{2}$ vel rarius æqualis. Corollæ tubus exannulatus, sæpius exsertus, limbus bilabiatus, labiis planis vel supremo (in Glechone) galeato. Stamina adscendentia, superioribus brevioribus vel abortivis.

XLV. HEDEOMA. Corollæ tubus vix exsertus. Calyx fauce intus villosa. Stamina superiora abortiva. — Americanæ cum unica Indica.

1. MOSLA. Calyx ovatus. Folia dentata.

2. HEDEOMA. Calyx tubulosus. Folia integerrima.

XLVI. MICROMERIA. Corollæ tubus raro exsertus. Calyx sub-æqualis. Stamina superiora antherifera.

1. HESPEROTHYMUS. Pedicelli axillares, uniflori, calyce longiores. — Americanæ cum unica Novo-Zeelandica.

2. PIPERELLA. Flores subsessiles vel in pedunculis glomerati. — Amphigææ temperatæ calidæ et subtropicæ.

3. PSEUDOMELISSA. Cymæ pedunculatæ laxæ. — Mediterraneæ.

✧ *Melissæ Calaminthæ* nonnullæ a Micromeriis vix diversæ.

XLVII. MELISSA. Calyx bilabiatus $\frac{3}{2}$. Corollæ tubus sæpius exsertus. Stamina superiora antherifera.

* *Calycis faux intus villosa.*

1. CALAMINTHA. Cymæ inferiores laxæ. Calyx basi vix gibbus. — Gerontogææ temperatæ.

2. CALOMELISSA. Verticillastri æquales, multiflori, condensati. — Boreali-Americanæ.

3. ACINOS. Verticillastri 6-flori. Calyx basi gibbus. — Gerontogææ temperatæ.

** *Calycis faux intus nuda, vel parce pilosa.*

4. CLINOPODIUM. Verticillastri æquales, multiflori vel laxi.

5. MELIPHYLLUM. Verticillastri pauciflori secundi. Calyx patens. Corolla flava vel albida. — Gerontogææ temperato-calidæ et subtropicæ.

6. MACROMELISSA. Cymæ umbellæformes subdichotomæ. Calyx patens. — Europæa cum altera Mexicana.

7. HETEROMELISSA. Verticillastri irregulares secundi. — Indica.

✧ *Micromeriæ Pseudo-Melissæ* a Melissis vix diversæ.

XLVIII. GARDQUIA. Calyx tubulosus subincurvus, ore æquali vel subbilabiato. Corollæ tubus longe exsertus. Stamina 1-3, subinde sterilia. — Austro-Americanæ cum unica Floridana.

✂ *Melissa longicaulis* (Indica) a Gardquia vix diversa.

XLIX. GLECHON. Stamina superiora abortiva. Corollæ labium superius galeatum. — Austro-Americanæ.

L. KEITHIA. Stamina superiora omnino abortiva. Corollæ labia plana, tubo exserto. — Americanæ calidæ.

1. ERIOTHYMUS. Calycis faux villosa. Cymæ axillares.

2. KEITHIA. Calycis faux nuda, dentibus acutis.

3. RHABDOCAULON. Calycis faux villosa. Verticillastri spicati.

4. GYMNOCYLIX. Calycis faux nuda, dentibus obtusis.

✂ HEDEOMÆ nonnullæ tubo corollæ exserto vix a Keithiis differrunt.

LI. THYMBRA. Calyx valde compressus supra planus. Stamina superiora antherifera. — Mediterranea.

LII. DICERANDRA. Stamina 4 antherifera. Antheræ bicalcaratæ. — Boreali-Americana.

LIII. POGOGYNE. Stamina 4 antherifera. Stylus villosus. — Americanæ boreali-occidentales.

LIV. LEPECHINIA, ob calycem inflato-campanulatum reticulato-venosum, ad Stachydeas juxta Sphacele referenda est.

✂ Stachydeis plurimis corollæ labia plana, sed calyx non 13-nervius.

TRIBUS VI. SCUTELLARINEÆ.

Calyx bilabiatus, labio superiore truncato, integro vel subtridentato. Corolla tubo exserto adscendente, limbi labio superiore fornicato, vel rarius plano. Stamina adscendentia, superioribus brevioribus.

* *Gynophorum æquale rectum. Calycis labia dentata.*

LV. PRUNELLA. Stylus apice bifidus. — Cosmopolitanæ.

LVI. CLEONIA. Stylus apice quadrifidus. — Europæa.

** *Gynophorum elongatum, incurvum, apice obliquum. Calycis labia integra.*

LVII. SCUTELLARIA. Achenia nuda. Corollæ labium superius fornicatum. — Cosmopolitanæ Africa subexcepta.

1. LUPULINARIA. Flores tetragono-spicati. Folia floralia sæpius membranacea. — Gerontogæ temperato-calidæ sæpius alpestres.

2. HETERANTHESIA. Flores racemosi, superiores sparsi. — Amphigææ subtropicæ.

3. STACHYMACRIS. Flores racemosi, secundi, oppositi. — Amphigææ temperato-calidæ.

4. GALERICULARIA. Flores plerumque axillares. — Cosmopolitanæ.

5. MASCHALOSTACHYS. Racemuli plerique axillares. — Indicæ cum Boreali-Americana.

LVIII. PERITOMIA. Achenia membranaceo-alata. Corollæ laciniæ subplanæ. — Americanæ calidæ.

TRIBUS VII. PROSTANTHEREÆ.

Calyx campanulatus nunc bilabiatus, labiis planis integris vel inferiore bidentato bifidove, nunc æqualis 5-dentatus, fauce intus nuda. Corolla tubo brevi amplo, fauce campanulata, limbo bilabiato, labiis subplanis. Stamina 4, didynama, corolla breviora, inferioribus nunc longioribus, nunc sterilibus. Achenia coriacea, reticulato-rugosa, stylo subpersistente. — Australasicæ.

* *Calyx bilabiatus* $\frac{1}{2}$ vel $\frac{1}{2}$.

LIX. CHILODIA. Calyx $\frac{1}{2}$. Antheræ muticæ.

LX. CRYPHIA. Calyx $\frac{1}{4}$. Antheræ muticæ.

LXI. PROSTANTHERA. Calyx $\frac{1}{4}$ vel vix $\frac{3}{4}$. Antheræ calcaratæ.

LXII. HEMIANDRA. Calyx $\frac{1}{2}$. Antheræ dimidiatæ.

** *Calyx æqualis 5-dentatus.*

LXIII. HEMIGENIA. Antheræ omnes loculo altero fertili altero sterili.

LXIV. WESTRINGIA. Antheræ staminum superiorum dimidiatæ, glabræ, inferiorum steriles.

LXV. MICROCORYS. Antheræ staminum superiorum dimidiatæ, barbatae, inferiorum steriles.

TRIBUS VIII. NEPETEÆ.

Calyx æqualis vel obliquus subbilabiatusve sæpius 15-nervius, dentibus superioribus majoribus. Corolla bilabiata. Stamina didynama, superioribus longioribus, adscendentia vel divergentia.

* *Stamina divergentia.*

LXVI. LOPHANTHUS.

1. CHIASTANDRA. Stamina superiora declinata, inferiora adscendentia. — Boreali-Americani.

2. RESUPINARIA. Stamina inferiora subrecta, superiora adscendentia. — Asiaticus orientalis.

** *Stamina adscendentia.*

LXVII. NEPETA. Calyx non bilabiatus, dente supremo parum latiore. Bracteæ integræ. Antherarum loculi divergentes vel divaricati. — Gerontogææ temperato-calidæ et subtropicæ.

1. SCHIZONEPETA. Verticillastri subspicati. Folia lobata.

2. PYCNONEPETA. Verticillastri subspicati, cymis sessilibus. Bracteæ calycem æquantes.

3. STEGIONEPETA. Cymæ inferiores pedunculatæ. Bracteæ calycem subæquantes.

4. CATARIA. Cymæ inferiores pedunculatæ. Bracteæ calyce multo breviores. Calyx incurvus ore obliquo.

5. MACRONEPETA. Cymæ pedunculatæ paucifloræ. Corollæ tubus longe exsertus tenuis.

6. GLECHOMA. Verticillastri axillares pauciflori.

7. ORTHONEPETA. Habitus *Cataria*. Calyx ovato-tubulosus, rectus, dentibus rigidus æqualibus.

8. OXYNEPETA. Flores distantes vel corymbosi. Calyx rectus dentibus subpungentibus corollam subæquantibus.

LXVIII. MARMORITIS. Calyx tubuloso-campanulatus, corolla longior. Antherarum loculi paralleli. — Himalayana.

LXIX. DRACOCEPHALUM. Calyx bilabiatus vel dente supremo maximo vel bracteæ ciliato-dentatæ. — Gerontogea temperato-calida cum unico Boreali-Americano.

1. KEIMODRACON. Procumbentia. Folia incisa. Flores capitato-spicati. Antheræ glabræ. — Gerontogea.

2. CALODRACON. Erecta, subsimplicia, paucifoliata. Verticillastri capitato-spicati. Antheræ glabræ. — Gerontogea.

3. CRYPTODRACON. Erectum, ramosum, foliosum. Verticillastri capitato-spicati. Antheræ glabræ. — Boreali-Americanum.

4. MOLDAVICA. Suberecta, foliosa. Verticillastri distantes. Antheræ glabræ. — Gerontogea.

5. RUYSCHIANA. Erecta, foliosa. Verticillastri interrupte spicati. Antheræ villosæ. — Gerontogea.

LXX. CEDRONELLA. Corollæ tubus exsertus. Antherarum loculi paralleli. — Americanæ cum Canariensi.

TRIBUS IX. STACHYDEÆ.

Calyx irregulariter venosus, 5-10-nervius, æqualis, obliquus vel rarius subbilabiatus 3-10-dentatus. Corollæ tubus intus sæpe annulatus, limbus bilabiatus. Stamina 4, adscendentia, didynama, superioribus brevioribus. Achenia sicca, non reticulato-rugosa.

* *Calyx post anthesin inflatus vel 2-4-lobus. Corolla longe exserta.*

LXXI. MELITTIS. Calyx membranaceus, campanulatus, lobis 3-4 rotundatis. Corolla ampla, longe exserta. — Europææ.

LXXII. PHYSOSTEGIA. Calyx obscure venosus post anthesin inflatus. Corolla longe exserta, fauce amplissima. — Boreali-Americanæ.

LXXIII. MACBRIDEA. Calyx membranaceus campanulatus, lobis 3, supremo oblongo, inferioribus rotundatis. Corolla longe exserta, fauce amplissima. — Boreali-Americanæ.

✱ Genera hæc 3 vix inter se distincta.

LXXIV. SYNANDRA. Calyx 4-merus. Antherarum superiorum loculi supremi cassi, connati. — Boreali-Americana.

** *Calyx 5-dentatus, limbo non dilatato. Stamina e tubo exserta. Corolla subplana vel fornicata.*

LXXV. LAMIUM. Calyx 5-nervius, 5-dentatus, dentibus non spinosis. Corollæ labium superius subfornicatum vel galeatum, laciniae laterales nunc nullæ, nunc dentiformes vel rarius oblongæ. Achenia acute triquetra truncata. Folia integra. — Gerontogææ temperatæ.

1. ORVALA. Corollæ tubus rectus, transverse annulatus. Antheræ glabræ.

2. LAMIOPSIS. Corollæ tubus rectus nudus vel transverse annulatus. Antheræ hirsutæ.

3. LAMIOTYPUS. Corollæ tubus annulatus recurvo-porrectus, fauce parum dilatata. Antheræ hirsutæ.

4. GALEOBDOLON. Corollæ tubus oblique annulatus subrecurvo-porrectus. Antheræ glabræ.

LXXV*. LAGOCHILUS (p. 640). Calyx 5-nervius, dentibus 5 rigidis subspinosis. Corollæ labium superius oblongum, apice bifidum. Achenia acute triquetra, apice truncata. — Asiatici temperati.

LXXVI. LEONURUS. Calyx 5-nervius, dentibus 5 rigidis subspinosis. Corollæ labium superius oblongum subplanum vel fornica-

tum, laciniae laterales oblongae. Achenia acute triquetra, truncata. Folia laevia. — Cosmopolitani.

1. **CARDIACA.** Corollae tubus oblique annulatus, galea subplana, labium patentissimum.

2. **CHAITURUS.** Corollae tubus nudus, galea subfornicata, labium subpatens. Stamina vix exserta.

3. **PANZERIA.** Corollae tubus nudus, galea fornicata, labium erectiusculum. Stamina e tubo exserta.

* *Lamia Galeobdolones* a *Cardiaca*; *Stachydes* plures a *Chaituro* vix nisi habitu distinguenda.

LXXVI*. **ANISOMELES** (p. 701). Stamina e corollae labio superiore brevi exserta. — Gerontogae subtropicæ et Australasicæ.

LXXVII. **GALEOPSIS.** Calyx sub-5-nervius 5-dentatus subspinescens. Antherarum loculi transversim bivalvatim dehiscentes, valvula interiore minore ciliata. — Gerontogae temperatæ.

LXXVIII. **STACHYS.** Calyx 5-10-nervius, 5-dentatus. Corollae faux vix dilatata, galea subfornicata, rarius oblonga plana emarginata. Stamina e tubo exserta. Achenia obtusa rarissime truncata. — Cosmopolitanæ.

* *Bracteae exteriores calycem subaequantes.*

1. **ALOPECUROS.** Verticillastri spicati. Corollae flavescentes tubo incluso. — Europæa.

2. **BETONICA.** Verticillastri interrupte spicati. Corollae purpurascens, tubo exserto. — Gerontogae temperatæ.

3. **ERIOSTACHYS.** Verticillastri inferiores distantes. Corollae purpurascens vel flavescentes, tubo incluso vel vix exserto. — Gerontogae temperato-calidæ.

** *Bracteae subnullae minutæ vel paucae laxæ.*

4. **CALOSTACHYS.** Corollae rubro-coccineæ, tubo longe exserto. Verticillastri 6-flori. — Boreali-Americanæ cum Capensi.

5. **STACHYOTYPUS.** Herbæ raro lanatæ. Verticillastri 2-6-flori, rarissime multiflori. Corollae non ochroleucæ, tubo incluso vel vix exserto. — Cosmopolitanæ. — §. 1. *Genuinæ.* 2. *Ruderales.* 3. *Oliganthæ.* 4. *Agrestes.*

6. **OLISIA.** Herbæ non lanatæ. Verticillastri sub-6-flori. Corollae ochroleucæ. Folia ovata vel oblonga. — Mediterraneæ.

7. **CHAMÆSIDIRITIS.** Herbæ non lanatæ. Folia oblonga vel linearia. Calyces subspinescentes. Corollae ochroleucæ vel purpurascens. — Mediterraneæ.

8. **AMBLEIA.** Suffrutices. Calyces tomentosi vel lanati, dentibus mollibus muticis. — Mediterraneæ cum Capensibus.

9. **ZIETENIA.** Suffrutices. Calycis dentes subulati, sæpe spinosi. — Mediterraneo-Ponticæ.

LXXIX. **SPHACELE.** Calyx reticulato-venosus, dentibus subæqualibus. Corollae tubus amplus. Antheræ loculis linearibus divergentibus. — Americanæ.

LXXIX*. **LEPECHINIA** (p. 415). Calyx bilabiatus $\frac{3}{2}$. Corolla parva. — Mexicanæ.

*** *Stamina intra tubum inclusa.*

LXXIX**. CRANIOTOME (p. 704). Corollæ labium superius brevissimum truncatum. — Himalayana.

LXXX. SIDERITIS. Styli lobus inferior dilatatus superiorem truncatum basi amplexens. — Gerontogæ.

1. MARRUBIASTRUM. Frutices sæpe candidissimi. Folia floralia herbacea, infima caulinis subconformia, superiora minuta. — Canarienses.

2. EMPEDOCLEA. Suffrutices vel herbæ perennes. Folia floralia integerrima, flores amplexentia. — Mediterraneo-Ponticæ.

3. EUSIDERITIS. Suffrutices vel frutices. Folia floralia bractæformia, flores amplexentia, margine spinoso-dentata. — Mediterraneæ.

4. HESIODIA. Herbæ annuæ. Folia floralia caulinis subconformia minora. — Gerontogæ temperato-calidæ.

LXXXI. MARRUBIUM. Styli lobi subæquales. Calyx tubulosus. — Gerontogea temperato-calida et spurie Cosmopolitana.

1. LAGOPSIS. Calycis dentes 5. Corollæ tubus exannulatus, labium superius integrum. Folia rotundata, inciso-palmatifida. — Asiatica.

2. MARRUBIUM. Calycis dentes 5-10. Corollæ tubus subannulatus, labium superius emarginatum vel bifidum. Folia crenata vel rarius incisa. — Europæo-Asiatica cum unico spurie Cosmopolitano.

✶ In LEONURO *Marrubiastrum*, et LEPECHINIA, stamina vix e tubo exserta.

**** *Calycis limbus, vel dilatatus, vel 6-10-dentatus, vel ore truncato intra dentes submembranaceo, vel latissime membranaceo-campanulatus. Corollæ labium superius sæpe compresso-galeatum. Stamina e tubo exserta.*

LXXXII. BALLOTA. Calyx regularis subinfundibuliformis 5-10-dentatus. Antheræ biloculares. — Gerontogæ temperato-calidæ cum unica Capensi.

1. BERINGERIA. Bractæ molles. Calyx 6-10-dentatus vel crenatus.

2. BALLOTA. Bractæ molles. Calycis limbus 5-dentatus.

3. ACANTHOPRASIMUM. Bractæ spinæformes. Calycis limbus 5-10-dentatus.

LXXXIII. LASIOCORYS. Calyx subæqualis dentibus 5 ovatis, sinibus rarius dentibus minutis acutis. Corollæ galea hirsutissima. Antheræ biloculares. — Austro-Africanæ.

LXXXIV. ROYLEA. Calycis laciniae 5, æquales, oblongæ, membranaceæ. — Himalayana.

LXXXV. OTOSTEGIA. Calycis limbus subbilabiatim membranaceo-productus, labio inferiore maximo. Antheræ biloculares. — Egypto-Arabicæ.

LXXXVI. LEUCAS. Calycis limbus 8-10 dentatus. Antherarum loculi confluentes. Corollæ galea hirsutissima brevis. Styli lobus inferior brevissimus. — Gerontogæ calido-tropicæ.

* *Calyx ore obliquo latere inferiore productione.*

1. HEMISTOMA. Verticillastri dense multiflori. Bracteae numerosae.
2. LOXOSTOMA. Verticillastri pauciflori. Bracteae minutae.

** *Calyx ore subaequali.*

3. ORTHOLEUCAS. Verticillastri paucius multiflori. Bracteae saepius minutae. Calycis faux intus nuda, dentibus rectis.
4. ASTRODON. Verticillastri densi. Bracteae calyces aequantes. Calycis faux villosa, dentibus demum subpatentibus.

*** *Calyx ore obliquo vel reflexo, superne productione.*

5. PLAGIOSTOMA. Bracteae calycem subaequantes.

Genera 4 praecedentia inter se maxime affinia.

LXXXVII. LEONOTIS. Calyx *Leucadis Plagiostomatis*. Corolla flava vel coccinea, galea labio multo longiore.—Subtropicæ præcipue Gerontogæ.

LXXXVIII. PHLOMIS. Calyx tubulosus 5-vel-10-striatus, saepius plicatus 5-dentatus, † margine inter dentes submembranaceo. Filamenta superiora saepius appendiculata. Antherarum loculi confluentes.—Gerontogæ temperato-calidæ et subtropicæ.

1. EUPHLOMIS. Corollæ galea maxima incumbens. §. 1. *Lychnitis*.
2. *Gymnophlomis*. 3. *Dendrophlomis*. 4. *Oxyphlomis*.

2. PHLOMIDOPSIS. Corollæ galea suberecta, intus et margine longe barbata.

LXXXIX. NOTOCHÆTE. Calyx ore membranaceo, nervis 5 in aristas subulatas apice hamatas productis.—Himalayana.

XC. EREMOSTACHYS. Omnia *Phlomidis* sed calyx amplior, limbo saepe maximo membranaceo.—Asiaticæ mediæ.

XCI. ERIOPHYTON. Calyx membranaceus ample campanulatus. Corollæ galea maxima incumbens, labio parvo trifido.—Himalayanum.

XCII. MOLUCCELLA. Calycis limbus amplius obliquus 5-10-mucronatus vel spinosus. Filamenta basi nuda.—Mediterraneæ Orientales.

XCIII. LAGOCHILUS. Vide supra LXXV*.

XCIV. HOLMSKIOLDIA. Calyx maximus coloratus subrotato-campanulatus. Ovarium bipartitum, lobis bifidis.—Indica.

XCV. ACHYROSPERMUM. Achenia apice squamis oblecta.—Gerontogea tropica.

XCVI. COLQUHOUNIA. Achenia apice longe membranaceo-producta.—Indicæ.

† Nec ut in textu p. 620, errore typographico, 3-dentatus.

TRIBUS X. PRASIEÆ.

Corolla bilabiata. Stamina 4, adscendentia, inferioribus longioribus. Achenia carnosa subbaccata.

XCVII. GOMPHOSTEMMA. Corollæ faux dilatata. Antherarum loculi transversi paralleli. — Asiatica tropica.

XCVIII. PHYLLOSTEGIA. Corollæ faux subæqualis. Antherarum loculi divergentes. Styli lobi non subulati. — Sandwicenses.

XCIX. STENOGYNE. Corollæ faux dilatata. Antherarum loculi demum divaricati. Styli lobi subulati. — Sandwicenses.

C. PRASIMUM. Calyx bilabiatus. Corollæ tubus inclusus. — Mediterraneum.

✱ In Prostanthereis nonnullis achenia subcarnosa sunt.

TRIBUS XI. AJUGOIDEÆ.

Corollæ labium superius nunc brevissimum, nunc fissum, laciniis demissis, rarissime erectum fornicatum; inferius elongatum. Stamina adscendentia, sæpissime exserta, superiora breviora vel abortiva. Achenia plus minusve reticulato-rugosa.

CI. AMETHYSTEA. Stamina superiora abortiva. — Asiatica temperata.

CII. TRICHOSTEMMA. Corollæ limbus subæqualiter 5-fidus, laciniis declinatis. — Boreali-Americanæ.

1. STREPTOPODIUM. Calyx valde obliquus, torsione pedicelli reversus.

2. ORTHOPODIUM. Calyx rectus æqualis.

CIII. TEUCRIUM. Corollæ laciniae 4 subæquales vel 2 supremis majoribus, omnes declinatae vel brevissime truncatae, infima maxima rotundata vel oblonga sæpius concava. — Stamina exserta.

• Corollæ laciniae superiores brevissimæ truncatae.

1. LEUCOSCEPTRUM. Verticillastri multiflori spicati. — Himalayanum.

2. TEUCROPSIS. Verticillastri biflori. — Canariensia.

** Corollæ laciniae superiores vel saltem laterales oblongæ declinatae.

3. TEUCRIS. Flores axillares vel racemosi. Calyx rectus æqualis. — Cosmopolitana.

4. **PYCNOBOTRYS.** Flores spicati. Corollæ laciniae supremæ latæ truncatæ, laterales minutæ oblongæ declinatæ.—Asiatica cum unico Canariensi.

5. **STACHYOBOTRYS.** Flores spicati. Corollæ laciniae 4 superiores oblongæ declinatæ.—Americana et Mediterranea.

6. **SCORODONIA.** Flores oppositi racemosi secundi. Calycis dens supremus ovatus.—Gerontogea temperato-calida.

7. **SCORDIUM.** Verticillastri 2-6-flori axillares.—Gerontogea temperata.

8. **CHAMÆDRYS.** Verticillastri 2-6-flori, racemosi. Calycis dentes subæquales.—Gerontogea temperato-calida.

9. **POLIUM.** Verticillastri in capitula terminalia condensati.—Mediterraneo-Pontica.

CIV. AJUGA. Corollæ labium superius breve, sæpius brevissimum. Stamina sæpissime exserta.

1. **BUGULA.** Verticillastri 6-multiflori.—Gerontogæ et Australasicæ.

2. **CHAMÆPITHYS.** Verticillastri 2-flori. Corollæ labium superius brevissimum truncatum.—Gerontogæ.

3. **PSEUDANISOMELES.** Verticillastri 2-6-flori. Corollæ labium superius inferiore vix triplo brevius.—Australasicæ.

CV. ANISOMELES, et CVI. CRANIOTOME, inter *Stachydeas* quærendæ.

CVII. CYMARIA. Corollæ labium superius elongatum galeatum.—Indicum.

ISANTHUS Menthoidearum vix corolla subregulari ab Ajugoideis differt.

							ALLS.					m.
—	—	—	—	—	—	—	—	—	—	1	—	1
—	—	—	—	—	—	—	—	—	—	2	—	2
—	—	—	—	—	—	—	—	—	—	3	—	3
—	—	—	—	—	—	—	—	—	—	1	—	1
—	—	—	—	—	—	—	—	—	—	3	—	3
—	—	—	—	—	—	—	—	—	—	3	—	3
—	—	—	—	—	—	—	—	—	—	14	—	14
—	—	—	—	—	—	—	—	—	—	—	12	12
—	—	—	—	—	—	—	—	—	—	1	7	7
—	—	—	—	—	—	—	—	—	—	1	—	1
—	—	—	—	—	—	—	—	—	—	1	—	1
—	—	—	—	—	—	—	—	—	—	—	5	5
6	2	4	—	3	1	2	1	—	1	58	6	64
5	1	4	—	—	—	—	1	—	1	29	—	29
—	—	—	—	—	—	—	—	—	—	8	—	8
—	—	—	—	—	—	—	—	—	—	1	—	1
—	—	—	—	—	—	—	—	—	—	2	—	2
31	71	57	1	104	21	86	12	—	12	1065	684	1714
15	65	49	1	64	12	52	6	—	6	1030	649	—

LABIATARUM

GENERA ET SPECIES.

TRIBUS I. OCYMOIDEÆ.

STAMINA declinata. Corolla subbilabiata, lobis quatuor superioribus planis subæqualibus, infimo declinato plerumque difformi, plano vel sæpius concavo, cymbiformi, vel saccato.

I. OCYMUM.

Ocymi Sp. Linn. et Auct.

Calyx ovatus vel campanulatus 5-dentatus, dentis superioris ovato-membranacei marginibus decurrentibus alatus, post anthesin deflexus, fauce intus nuda vel pilosa. Corolla tubo calyce subbreuiore intus exannulato, fauce sæpius campanulata, limbo bilabiato, labio superiore quadrifido, inferiore vix longiore declinato integerrimo subplano. Stamina 4, declinata, didynama, inferioribus longioribus. Filamenta libera, superiora basi sæpe dente vel pilorum fasciculo appendiculata. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice breviter bifidus, lobis subæqualibus subulatis vel complanatis, stigmatibus minutis vel marginalibus. Achenia lævia. — Herbæ vel suffrutices. Verticillastri 6-flori, rarissime sub-10-flori, interrupte spicati vel racemosi, racemis simplicibus vel basi subramosis rarius thyrsoideo-paniculatis.

This is chiefly an East Indian genus; but some species are also found in the tropical and southern extra-tropical parts of Africa and South America.

Under the name of *Ocymum* were originally comprehended the greater part of the Indian and African *Ocymoideæ* then known; and the tooth at the base of the upper stamina was considered by Linnæus as the universal and essential character of the genus. Lamarck afterwards under the name of *Germanea*, and L'héritier under that of *Plectranthus*, separated some new species, which were observed to have a spur or an angle on the upper side of the tube of the corolla, and no tooth to the stamina, presuming that all those species which they considered as true *Ocyma* had that tooth; and Loureiro established the genus *Coleus* for the monadelphous species. Brown, in adopting L'héritier's *Plectranthus*, considered the form of the corolla as the

principal character, and attaching little importance to the monadelphous stamina of *Coleus*, joined the two; hinting, at the same time, at the necessity of revising the genus *Ocymum*, and observing on the minor importance of the character derived from the tooth of the stamina. He also pointed out the affinity of *Plectranthus* with the *Lavandula carnosæ*, stating this to be a distinct genus, since established by Wallich under the name of *Anisochilus*. Roth, in describing several new species, dropped entirely the character derived from the stamina, and considered the spur alone as the distinction between *Plectranthus* and *Ocymum*. Since then, Palisot de Beauvois has established the genus *Platostoma*, Jacquin his *Lumnitzera* (changed by Reichenbach to *Moschosma*), and Hooker his *Pycnostachys*. The confusion created by all these partial changes was doubled by Sprengel, who, apparently under the guidance of mere fancy, distributed the species without any examination into three genera, *Lumnitzera*, *Ocymum*, and *Plectranthus*, suppressing all the others. Blume, more recently, in his exact but far too concise *Bijdragen*, considers, with Brown, all the monadelphous species as *Plectranthi*: he places in *Elsholtzia* a plant which to me appears to belong to some genus of this tribe, and establishes a new one, *Mesona*, with which I am as yet unacquainted. The vast addition now made to this set of plants by Wallich and others, has induced me to adopt most of the above-mentioned genera, taking the characters from the calyx and corolla, and sometimes from the style or the inflorescence, and making use of the appendages at the base of the stamina as a mere sectional distinction, the connexion of this character with the habit, or with the form of any other parts of the flower, proving, on examination, far too slight to give it any other importance.

CONSPECTUS SPECIERUM.

SECT. 1. OCYMODON. *Filamenta superiora basi denticulo appendiculata.*

Genitalia corolla vix duplo longiora.

Calycis labium superius orbiculatum.

Calyces fructiferi reflexi cauli arcute adpressi. Verticillastri 6-flori.

Folia basi angustata.

Calyx fructifer vix 2 lin. longus, racemi numerosi stricti . . .

1. O. CANUM.

Calyx fructifer ultra 2 lin. longus . . .

2. O. BASILICUM.

Folia basi rotundata . . .

3. O. FORSKOHLII.

Calyces fructiferi nutantes laxi. Verticillastri pauciflori . . .

4. O. MINIMUM.

Calycis labium superius ovatum.

Frutex humilis ramosissimus incanus . . .

11. O. BURCHELLIANUM.

Caules elati herbacei vel fruticosi.

Herba glaberrima (Americana) . . .

5. O. SELLOI.

Herbæ vel frutices pubescentes (Africanæ et Asiaticæ).

Calycis dentes inferiores subulati, infimis elongatis connatis . . .

6. O. VIRIDE.

Calycis dentes inferiores brevissimi, supremus margine revolutus . . .

7. O. GRATISSIMUM.

Frutices villosi, foliis rugosis villosis.

Folia basi angustata . . .

8. O. SUAVE.

Folia basi rotundata vel cordata . . .

9. O. BOJERI.

Genitalia corolla plus duplo longiora.

Frutex erectus, foliis ovato-oblongis . . . 10. O. FILAMENTOSUM.

Frutex humilis divaricatus, foliis parvis ob-
longo-cuneatis . . . 12. O. SERPYLLIFOLIUM.

Herba ramosissima prostrata vel adscendens . . . 13. O. ADSCENDENS.

14-17. Species non satis notæ, quarum 2 Africanæ, 2 Javanicæ.

SECT. 2. HIEROCYUM. *Filamenta superiora basi fasciculo pilorum appendiculata.*

Caulis et folia glabra vel vix pubescentia.

Herba pusilla repens . . . 22. O. TENELLUM.

Herba erecta . . . 18. O. CARNOSUM.

Caulis pilosus, folia pubescentia vel villosa.

Calyx intus ad faucem nudus.

Flores subsessiles . . . 20. O. TENUIFLORUM.

Flores pedicellati . . . 19. O. SANCTUM.

Calyx intus ad faucem villosus . . . 21. O. GRACILE.

SECT. 3. GYMNOCYMUM. *Filamenta omnia nuda.*

Verticillastri 2-6-flori.

Caulis subnudus, folia radicalia . . . 27. O. NUDICAULE.

Caulis pilosus.

Calycis dentis supremi alæ fere ad basin
calycis decurrentes.

Alæ pedicellum attingentes, folia pe-
tiolata.

Glabrum . . . 23. O. MICRANTHUM.

Canescens . . . 25. O. INCANESCENS.

Sub-hirsutum, foliis supra viridibus
subtus canescentibus . . . 24. O. CAMPECHIANUM.

Alæ pedicellum non attingentes, folia
ovata, spica densa . . . 26. O. OVATUM.

Calycis dentis supremi alæ breviter de-
currentes.

Corolla vix calycem excedens.

Calyces fructiferi cylindrici . . . 29. O. TERETICAULE.

Calyces fructiferi ovati.

Verticillastri biflori, folia floralia
pedicello breviora . . . 28. O. RIGIDUM.

Verticillastri sexflori foliis flo-
ralibus breviores . . . 30. O. BRACTEOSUM.

Corolla calyce duplo longior, suffrutex
ramosissimus humilis . . . 31. O. DIFFUSUM.

Verticillastri sub-10-flori . . . 32. O. MEMBRANACEUM.

Species non satis nota, 1 Africana . . . 33. O. THONNINGII.

34-44. Species quoad sectionem vel genus dubiæ, scil. 1 Africana, 2 Arabicæ,
3 Indicæ, 4 Japonicæ.

SECTIO I. OCYMODON.

Filamenta superiora basi denticulo appendiculata. — Verticillastri sæpissime sexflori, pedicellis reflexis, calyce fructifero sæpius brevioribus.

1. O. CANUM (Sims Bot. Mag. 51. t. 2452), caule herbaceo erecto pubescente, foliis petiolatis ovatis utrinque angustatis subintegerrimis subtus canescentibus, petiolis ciliatis, racemis simplicibus, calycibus pedicello longioribus, fructiferis reflexis cauli adpressis basi supra

gibbis vix ciliatis, dente supremo orbiculato concavo brevissime acuminato, alis basin calycis non attingentibus, dentibus lateralibus ovatis acutis, infimis setaceis, filamentis superioribus basi appendiculatis.

O. americanum. Linn.! *Amæn. Acad.* 4. 276. *Id. Sp.* 833, non Jacq.

O. album. Roxb.! *et aliorum*, non Linn.

O. stamineum. Sims *Bot. Mag.* 51. t. 2452, in textu.

Hab. in Asia calidiore: in Madagascaria *Lyall!* vulgare in Indiæ orientalis peninsula! in ins. Ceylon! in provincia Silhet Bengalîe *Wallich!* in regno Burmanico ad Paghamew *Wallich!* in China *Sims*, in ins. Marianis *Gaudichaud!* (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *O. basilico*, sed floribus duplo minoribus et habitu distincta. Caulis pedalis vel ultra, ramosus, pilis brevibus reflexis sæpius fasciculatis cano-pubescens, ad axillas pilis nonnullis longis albidis ciliatus. Folia ovata v. ovato-oblonga, 1-2 pollices longa, integerrima v. subdentata, margine petiolisque pilis raris longis albis sæpius ciliata, supra ad nervos tenuissime pubescentia, subtus glabra punctata. Racemi numerosi, stricti, 6-pollicares v. ultra, verticillastris numerosis, fructiferis vix semipollicem distantibus. Folia floralia oblonga, petiolata, calyces vix superantia, ciliata. Calyces uti pedunculi parce ciliati, orbiculato-depressi vix sesquilineam lati. Genitalia corolla fere duplo longiora.

2. *O. BASILICUM* (Linn.! *Sp.* 833), caule herbaceo erecto vel adscendente, foliis petiolatis ovatis vel oblongis basi angustatis subdentatis glabris, petiolis ciliatis, racemis simplicibus, calycibus pedicello longioribus, fructiferis reflexis inflato-campanulatis ciliatis basi supra gibbis, dente supremo ovato concavo brevissime acuminato, alis basin calycis non attingentibus, dentibus lateralibus ovatis acutis, infimis setaceo-acuminatis, filamentis superioribus appendiculatis.

α *pilosum*, caule ramosissimo adscendente, foliis parvis oblongis integerrimis, petiolis verticillastrisque pilosissimis, racemis elongatis, corollis sæpius glabris.

Basilicum indicum. Rumph. *Herb. Amb.* 5. 263. t. 92. f. 1.

O. minimum. Burm.! *Fl. Ind.* 129, non Linn.

O. basilicum. Burm.! *Fl. Ind.* 129.

O. hispidum. Lam.! *Dict.* 1. 384.

O. pilosum. Willd.! *Enum.* 6. 29. Roxb.! *Hort. Beng.* 45.

O. ciliatum. Hornem.! *Hort. Hafn.*

O. hispidulum. Schum. *Pl. Guin. in Act. Soc. Hafn.* 4. 40.

β *anisatum*, habitu fere varietatis α , sed erectius minus pilosum, foliis majoribus crassioribus subdentatis, corollis sæpius villosis.

Soladi Tirtava. Rheede *Hort. Mal.* 10. 173. t. 87.

Basilicum citratum. Rumph. *Herb. Amb.* 5. 266. t. 93. f. 1.

O. basilicum. Linn.! *Sp.* 833.

O. lanceolatum. Schum. *Pl. Guin. in Act. Soc. Hafn.* 4. 42? (*vide post n. 14.*)

O. anisatum. Hortul.

γ *glabratum*, caule erecto, petiolis calycibusque parce ciliatis, foliis vix dentatis, racemis elongatis simplicibus.

O. integerrimum. Willd.! *Sp.* 3. 162.

O. caryophyllatum. Roxb.! *Hort. Beng.* 45.

δ *majus*, foliis ovatis calycibusque magnis, racemis elongatis simplicibus.

O. majus. Hortul.

ϵ *album*, foliis lato-ovatis crassiusculis dentatis, racemis abbreviatis densis vix ciliatis canescentibus, corollis glabris vel villosis.

O. album. Linn.! *Mant.* 85.

O. laxum. *Herb. Vahl! an Schousb.*

O. americanum. *Jacq.! Hort. Vind. 3. t. 86.*

♂ *difforme*, foliis bullatis crispis v. varie laciniato-dentatis, corollis sæpius villosis, racemo vario.

O. bullatum. *Lam. Dict. 1. 384.*

O. urticæfolium. *Hortul. non Roth.*

O. fimbriatum. *Hortul.*

O. peltatum. *Hortul.*

O. cochleatum. *Hort. Par.*

O. scutellarioides crispum. *Burm.!*

η *densiflorum*, erectum glabratum, petiolis calycibusque vix ciliatis, racemo abbreviato subramoso.

O. Barrelieri. *Roth. Nov. Pl. Sp. 278.*

Plectranthus Barrelieri. *Spreng. Syst. 2. 691.*

θ *purpurascens*, erectum glabratum atro-purpurascens, petiolis calycibusque vix ciliatis, racemo elongato subramoso.

O. medium. *Mill.! Dict.*

O. nigrum. *Thouin.*

ι *thyrsiflorum*, erectum glabratum, petiolis calycibusque vix ciliatis, racemo thyrsoido-ramoso.

O. thyrsiflorum. *Linn. Mant. 84. Murr. Comm. Gott. 8. 47. t. 5. Jacq. Hort. Vind. 3. t. 72.*

Hab. in India orientali calidiore indigenum, in hortis per omnem terrarum orbem sæpissime cultum; nunc etiam sponte in America centrali; var. α, in Indiæ orientalis peninsula! in Bengala *Wallich!* in Java *Commerson!* et in Senegambia Africæ occidentalis (an indigena?) *Le Prieur et Perrottet!* β, in hortis culta et etiam spontanea in America centrali! et ad oras Africæ orientalis tropicæ! γ, in Indiæ orientalis peninsula! in insulis Ceylon *Macrae!* Mauritio *Röttler!* Penang *Wallich!* Java *Commerson!* et Marianis *Commerson!* ad oras Africæ orientalis tropicæ *Forbes!* in Bengala circa templa sed vix indigenum *Roxburgh.* δ, ζ, η, ι, sunt varietates hortenses, θ etiam hortensis videtur, sed specimen spontaneum (an indigenum?) e Mauritio in herb. Hookeriano vidi (*h. s. sp. varr. α et γ e Mus. Angl. Ind. et v. v. vel s. c. varr. β, δ, ζ, η, θ, et ι.*)

Species diu culta sub diversis cœli temperiebus, unde quam maxime variabilis. Caulis herbaceus, annuus, sæpius ramosissimus, erectus vel in varr. α et β basi difusus et adscendens, pedalis vel ultra, basi glaber vel pilis brevibus reflexis pubescens. Folia ovata, obtusiuscula vel frequentius acuminata, basi sæpius (in speciminibus sylvestribus) valde angustata, subtus punctata, irregulariter dentata vel raro integerrima; floralia parva bractæformia, petiolata, ovata, acuminata, ciliata, calyces paullo superantia, sæpe colorata. Racemi sæpius 8-10-pollicares, nunc in var. η vix 2 poll. longa, in var. δ pedales, simplices vel in varr. η, θ, ι, varie ramosi. Verticillastri infimi sæpius pollicem fere distantes; supremi (in var. η et ι omnes) approximati. Corolla calyce subduplo longior, tubo incluso, fauce subinflata, in var. ι major; labium superius late quadrifidum, inferius integrum dilatatum, lobis sæpe crenatis undulato-crispis vel in varietatibus cultis fimbriatis. Stamina sæpius exserta. Filamenta superiora breviter appendiculata. Stylus basi incrassatus. Achenia lævia.

In the present state of confusion into which the different forms of this plant have been thrown by long cultivation, it appears to me to be the only safe plan to consider them as varieties of one and the same species; although it be not improbable that they may have arisen from the mixture of two species, the one procumbent and very pilose (*O. basilicum α pilosum*, supra), the other erect and glabrous (*O. basilicum γ glabratum*, supra), which are the only varieties that I

have seen in a wild state. All those which are so common in gardens, under the names of *O. citratum*, *anisatum*, *album*, *majus*, *cochleatum*, *fimbriatum*, *urticæ-folium*, *medium*, *thyrsiflorum*, &c., are evidently of mere garden origin.

3. *O. FORSKÖLEI*, caule herbaceo pubescente, foliis breviter petiolatis ovatis basi rotundatis subintegerrimis glabriusculis, petiolis nervisque ciliatis, racemis simplicibus, calycibus fructiferis pedicello longioribus inflato-campanulatis reflexis basi supra gibbis ciliatis, dente supremo orbiculato concavo, alis ad medium calycis attingentibus, lateralibus ovatis vix acuminatis, infimis lanceolato-setaceis.

O. gratissimum. *Forsk. Fl. Æg. Arab.* 110, non *Linn.*

Hab. in Arabia Felici *Forsköl!* (*v. s. sp. in herb. Banks.*)

O. cano et *basilico* affine, sed ab utroque foliis breviter petiolatis basi rotundatis crassiusculis differt. Folia canescentia, supra glabra, subtus ad nervos hispidula, margine vix crenata. Petioli dense ciliati. Verticillastri remoti. Flores *O. basilici*, sed stamina longius exserta.

4. *O. MINIMUM* (*Linn.!* *Sp.* 833), caule herbaceo erecto tenuissime pubescente, foliis longe petiolatis ovatis subintegerrimis glabris, petiolis nudis, floralibus subconformibus, racemis simplicibus abbreviatis, verticillastris laxis, calycibus pedicello subbrevioribus, fructiferis reflexis, dente supremo orbiculato, inferioribus brevibus acutis, filamentis superioribus basi appendiculatis.

O. salinum. *Molina Nat. Hist. Chil.* 291.*

Hab. in Chili prope Valparaiso: an indigenum? *Macrae!* in Ceylona *Linn.* sed dubia incola (*h. s. c. et v. s. sp.? in Mus. Soc. Hort. Lond. a Macraeo lectum.*)

Caulis erectus, ramosissimus, semipedalis aut vix pedalis. Folia numerosa, vix majora quam in *Thymo serpyllo*, floralia longe petiolata, inferiora caulinis vix minora, suprema parva et acutiora, fere omnia verticillastros superantia. Verticillastri pauci, laxi, vix sexflori. Calycis dens supremus obtusissimus, alis ad medium tubi decurrentibus, dentes inferiores late ovati. Corolla fere *O. basilici pilosi*.

This certainly appears to be very distinct from any of the varieties of *O. basilicum*, but it is difficult to come to any satisfactory conclusion without having ascertained its existence in a really wild state. Though cited by Linnæus as coming from Ceylon, I have never seen it in any collections from that island, or from any part of the East Indies. *Macrae's* Valparaiso specimens, however, if they are truly indigenous, would prove it to be a very distinct species; but I much suspect that they were taken from some plants escaped from the gardens.

5. *O. SELLOI*, glaberrimum, caule herbaceo erecto subsimplici, foliis petiolatis lato-ovatis acutis grosse serratis basi subcuneatis, floralibus sessilibus calyce brevioribus deciduis, racemo simplici, calycibus fructiferis pedicello longioribus ovatis reflexis subincurvis glaberrimis, dente supremo ovato obtuso concavo, alis medium calycis attingentibus, inferioribus ovatis, lateralibus brevissime, infimis longe setaceo-mucronatis.

Hab. in America meridionali: in Brasilia *Sello!* in Nova Hispania *Moçino* et *Sessé!* (*h. s. sp. e Mus. Reg. Berol.*)

Caulis e basi perenni ramosus, ramis subsimplicibus 1-2-pedalibus glaberrimis. Folia grosse serrato-crenata, basi cuneata v. rotundata in petiolum longe angustata, herbacea, utrinque glabra, subtus parce glandulosa, floralia bractæformia, decidua, sessilia, lato-ovata, integerrima, calyce breviora. Racemus elongatus 6-8-pollicaris. Verticillastri remoti, sexflori. Calyces membranacei, nervosi, fauce intus nuda. Corolla albida? calycem vix excedens, lobi 4 superiores brevissimi, obtusis-

* "*O. foliis ovatis glabris, caule geniculato.*"—*Mol. l. c.*

simi, infimus longior, ovato-rotundatus, planus. Stamina exserta. Filamenta 2 superiora basi dente obtuso brevi appendiculata. Styli lobi breves, dilatato-compressi. Achenia ovato-rotundata, subcompressa. Habitus fere *Orthosiphonis staminei*.

6. *O. VIRIDE* (Willd.! Enum. 629), caule fruticoso ramoso pubescente, foliis petiolatis ovato-oblongis acuminatis crenatis basi angustatis glabris vel ad costas pubescentibus, floralibus bractæformibus ovatis acuminatis deciduis, racemis ramosis, calycibus pedicello subæqualibus, fructiferis nutantibus, dente superiore ovato-acuminato concavo breviter decurrente, lateralibus subulatis, infimis elongatis subconnatis, corollis calycem vix superantibus, staminibus subexsertis, filamentis superioribus basi appendiculatis.

O. viridiflorum. Roth. Cat. Bot. 54 (ex ejusd. Nov. Pl. Sp. 279).

O. heptodon. Beauv.! Fl. Ow. et Ben. 2. 59. t. 94 (pessime).*

O. febrifugum. Lindl.! Bot. Reg. 9. 753.

Hab. in Africa occidentali tropica: in regno Benin *Palisot de Beauvois!* et in Sierra Leone *G. Don!* (v. s. sp. in herb. Pal. de Beauv. et Soc. Hort. Lond.)

Suffrutex tripedalis, erectus, basi nudus, ramis tetragonis pilosis, angulis rotundatis glaberrimis. Folia obtusa, crenata, glabriuscula, nervis pilosis subtus reticulata, glanduloso-punctata. Racemi terminales, ramosi, pubescentes, 3-4-pollicares. Verticillastri 6-flori. Calyces pilosiusculi, glanduloso-punctati. Corolla parva, calycem vix excedens. Stamina breviter exserta. Achenia rugosa. Valde affinis *O. gratissimo*, a quo differt præcipue statura minore erectiore et calycis forma.

7. *O. GRATISSIMUM* (Linn.! Sp. 832), caule fruticoso glabriusculo, foliis petiolatis ovatis acutis crenatis vel grosse dentatis basi angustatis glabris vel secus costas pubescentibus, floralibus bractæformibus lanceolatis acuminatis basi hastatis, racemis simplicibus vel basi subramosis pubescentibus, calycibus pedicellatis, fructiferis nutantibus, dente supremo ovato-oblongo breviter decurrente, inferioribus brevissimis, corollis calycem vix superantibus, staminibus exsertis, filamentis superioribus basi appendiculatis.

Cattu Tirtava. Rheede Hort. Mal. 10. 171. t. 86.

O. zeylanicum. Burm.! Thes. Zey. 174. et t. 80. f. 1. quoad folia.†

O. frutescens. Mill.! Dict. n. 6.

O. petiolare. Lam.! Dict. 1. 385.

O. gratissimum. Jacq. Ic. Rar. 3. 495.

Hab. in India orientali: in peninsula! in Bengala *Leschenault!* ad Monghyr et Nathpur *Hamilton!* in ins. Penang *Wallich!* (h. s. sp. e Mus. Angl. Ind.)

Rami elongati, obtuse tetragoni, angulis glabris, sulcis sæpe tenuiter pubescentibus. Folia longe petiolata, ampliora quam in *O. basilico* et affinis; floralia pedicello breviora, reflexa vel decidua. Racemi graciles, multiflori, foliis sæpe breviores, axi pubescente. Pedicelli breves calycesque pubescentes. In hortis sæpe colitur.

8. *O. SUAVE* (Willd.! Enum. 629), caule fruticoso villosa, foliis petiolatis ovato-oblongis acuminatis crenatis basi angustatis rugosis villosis, floralibus bractæformibus ovatis acuminatis, racemis subpaniculatis, verticillastris 6-floris, calycibus pedicellatis, fructiferis nutanti-

* The flowers in all Palisot de Beauvois' figures of Labiatae are taken from the artist's imagination.

† This figure is drawn from the leaves of *O. gratissimum* and the flowers of *O. sanctum*.

bus, dente supremo ovato breviter decurrente, lateralibus truncatis infimisque breviter setaceo-mucronatis, corollis calyce majoribus, filamentis superioribus basi appendiculatis.

O. urticæfolium. Roth. Cat. Bot. 52 (ex ejusd. Nov. Sp. Pl. 279.)

O. gratissimum. Lam. ! Dict. 1. 386. non Linn.

O. zeylanicum. Desf. ! Hort. Par. ed. 2. 75.

O. villosum. Weinm. in Syllog. Pl. Ratisb. 1. 121. non Roxb.

Hab. in Madagascaria Forbes ! (v. s. sp. in Mus. Soc. Hort. Lond.)

Frutex erectus, ramosus, ramis obtuse tetragonis villosis vel angulis demum glabratis. Folia crassiuscula, molliter rubiginoso-villosa, junioribus subtus lanatis, 2-4-pollicaria, grosse crenata, basi longe angustata, superiora minora. Racemi terminales, ramosi, foliis multo longiores. Folia floralia reflexa vel decidua. Verticillastri sexflori, laxi, approximati. Calyx floriger, pubescens, fructifer subglaber, membranaceus. Corolla major quam in *O. gratissimo*. Stamina exserta.

9. *O. BOJERI*, caule fruticoso tomentoso, foliis petiolatis ovatis crenatis basi rotundatis vel cordatis rugosis tomentosis, floralibus ovatis acuminatis, racemis simplicibus, verticillastris sub-10-floris, calycibus nutantibus, dente supremo ovato breviter decurrente, inferioribus brevissimis, corollis calyce duplo longioribus, staminibus exsertis, filamentis superioribus basi appendiculatis.

O. cordifolium. Bojer in Loud. Hort. Brit. 240?

Hab. in Madagascaria Bojer ! (v. s. sp. in herb. Hooker.)

10. *O. FILAMENTOSUM* (Forsk. Fl. Ægypt-Arab. 108), caule fruticoso ramoso cano-tomentoso, foliis breviter petiolatis ovato-oblongis utrinque angustatis acute serratis tenuissime pubescentibus, racemis simplicibus, calycibus pedicello longioribus, fructiferis reflexis, dente supremo breviter decurrente, lateralibus truncatis, infimis breviter mucronatis, corollis calyce sub-4-plo longioribus, genitalibus longe exsertis, filamentis superioribus basi appendiculatis.

O. abyssinicum. Hort. Par.

O. grandiflorum. L'hér. ! Stirp. 89. t. 43.

Hab. in Africa orientali tropica : in Abyssinia Bruce : in Arabia Felici prope montem Melhan frequens Forsköl (h. s. c. comm. a cel. De Candolle.)

Rami obtuse tetragoni, tomento brevissimo canescentes. Folia crassiuscula subcarnosa basi integerrima, in petiolum brevem villosum basi subdilatatum angustata ; floralia bractæformia colorata acuminata, ante anthesin comosa, per anthesin decidua. Racemi simplices, laxiusculi, breves. Verticillastri 6-flori. Calyces pubescentes nec ciliati, dentes laterales lati truncati, infimi in calyce florigero minuti ; calycem fructiferum non vidi. Corolla alba, subinfundibuliformis, limbi lobi 4 superiores subreflexo-patuli, infimus planus patens. Stamina corolla duplo longiora. Ab *Ocymis* aliis paullo recedit tubo corollæ exserto, at meo sensu certe in genere includendum ob corollæ formam et stamina basi appendiculata.

11. *O. BURCHELLIANUM*, caule fruticoso, foliis parvis subsessilibus oblongis integerrimis, junioribus ramisque canescentibus, floralibus bractæformibus deciduis, verticillastris 6-floris laxe racemosis, calycis pubescentis dente supremo ovato obtuso mucronato ala angusta decurrente, lateralibus obtusis, infimis acutis, staminibus corollam æquantibus.

Hab. ad C. B. S. Burchell ! Krebs ! (v. s. sp. in herb. DC.)

Suffrutex humilis, ramis tenuiter canescentibus. Folia basi angustata, crassiuscula, 1-nervia, juniora cano-tomentosa demum glabrata. Verticillastri in racemis

simplicibus terminalibus 3 vel 4. Calyx purpurascens, ovatus, striatus, deflexus. Corolla magnitudine *O. cani*. Species *O. serpyllifolio* affinis, at minus canescens, corolla minor, et stamina vix exserta.

12. *O. SERPYLLIFOLIUM* (Forsk.! Fl. Ægypt. Arab. 110), caule fruticoso, ramis canescentibus, foliis oblongo-cuneatis integerrimis cano-tomentosis basi angustatis, racemis simplicibus paucifloris, verticillastris laxe sexfloris, calycibus declinatis canescentibus, dente supremo ovato obtuso breviter decurrente, lateralibus ovatis acutis, infimis lanceolatis acuminatis, corollis calyce subduplo longioribus, staminibus longe exsertis.

Hab. in Arabia Felici: in monte Chadra *Forsköl!* (v. s. sp. in herb. Banks et Vahl.)

Frutex humilis, ramosus, cortice griseo laxo. Folia fere *Thymi vulgaris*, parva, incana, sæpe margine convoluta, fasciculata. Racemus brevis, verticillastris paucis 6-floris. Flores *O. adscendentis*. Corollæ labium superius patens, inferius declinatum, ovatum, concavum. Stamina corolla duplo longiora.

“Filamentorum processus magnus, villosus, et corolla violacea.”—*Forsk.*

13. *O. ADSCENDENS* (Willd.! Sp. 3. 166), caule herbaceo prostrato, ramis pubescentibus, foliis petiolatis ovato-oblongis obtusis subdentatis basi angustatis pubescentibus, floralibus bracteæformibus deciduis, racemis simplicibus, calycibus fructiferis nutantibus, tubo striato, dente supremo ovato decurrente, alis medium calycis attingentibus, lateralibus truncatis margine membranaceo-ciliatis, infimis brevissime setaceo-acuminatis, corollis calyce duplo longioribus, staminibus longe exsertis, filamentibus superioribus basi appendiculatis.

O. indicum. Roth. Nov. Pl. Sp. 273.

Plectranthus indicus. Spr. Syst. 2. 691.

O. cristatum. Roxb.! Hort. Beng. 45.

Hab. in India orientali: in totius peninsulæ aridis sabulosis frequens *Wight! Klein! &c.* (h. s. sp. e Mus. Angl. Ind.)

Caules e basi crasso perenni herbacei, prostrati, divaricati, tortuoso-ramosi, 6-9-pollicares, ramis apice sæpius canescentibus. Folia vix majora quam in *O. minimo*, forma fere *O. sancti*, subtus sæpius cano-tomentosa. Calyx fructifer *O. gratissimi*, basi profunde sulcatus et transverse rugosus, superne membranaceo-dilatatus nitidus, dente supremo marginibus revolutis, 2 infimis breviter setaceis, lateralibus minutissimis, fauce intus nuda. Corolla calycem vix excedens; genitalia triplo longiora. Filamenta superiora basi appendiculo cuneiformi-dilatato aucta. Stylus apice subulato-bifidus. Achenia subrotundo-compressa, lævia.

Species Sectionis I non satis notæ.

14. *O. LANCEOLATUM* (Schum. Pl. Guin. in Act. Acad. Hafn. 4. 42).

Hab. in Africa occidentali tropica *Thonning*.

“*O. foliis ovato-lanceolatis serrulatis, articulis petiolisque subciliatis, calycibus hirtis, bracteis pilis albidis ciliatis.*

“*Radix simplex vel subramosa. Caulis bi-tripedalis, frutescens, teretiusculus, ramosus: ramulis tetragonis, articulatis, glabris, articulis extimis pilosis. Folia opposita, ovato-lanceolata, leviter in petiolum desinentia, subdenticulata, vix manifeste punctata, subnervosa, glabra; (juniora hirsutiuscula). Petiolus brevis, canaliculatus, sessilis, subciliatus. Inflorescentia terminalis, verticillato-spicata: verticillis sexfloris, distantibus; ante anthesin tetragona, bracteis ciliatis, decussatis. Pedunculus communis obtuse tetragonus, quadrisulcatus, pubescens. Pedicelli*

utrinque terni, breves, pubescentes, recurvati. Bracteæ oppositæ, lanceolatæ, ciliatæ, subsessiles, extimæ gradatim minores.

“ Perianthium breve, pilosiusculum, intus villosum, bilabiatum : labium superius latius, orbiculatum, extus concavum, ciliatum, horizontale : labium inferius semiquadrifidum, acutum, connivens. Corolla ringens, resupinata, calyce duplo longior. Tubus patens, gibbus; labium alterum sursum spectans, angustius, longius, margine undulato. Filamenta quatuor, corolla longiora, filiformia, declinata, lateralia intermediis parum breviora, distantia, prope ad basin processum exserentia. Antheræ reniformes, compressæ. Germen quadripartitum, parvum. Stylus staminibus parum longior, filiformis, declinatus. Stigma bifidum, acutum. Semina quatuor in fundo calycis.” *O. basilico* affine, sed in hoc bracteæ minores ciliatæ, petioli glabri, articuli pubescentes nec margine hispidi, folia ovata.—*Schum. l. c.*

15. *O. GUINEENSE* (Schum. Pl. Guin. in Act. Acad. Hafn. 4. 38).

Hab. in Africa occidentali : in sylvis Accræ *Thonning!* (v. s. sp. in herb. Reg. Hafn.)

“ *O. foliis ovatis utrinque attenuatis serratis subtus pilosis punctatis rugosis, racemis terminalibus ramosis, calycibus glabris, bracteis deltoideis acuminatis deciduis, ramis hirsutis.*

“ Radix simplex vel subramosa. Caulis suffruticosus, bi-quadripedalis, ramosus : ramis herbaceis, quadrangularibus, quadrisulcatis, pilosis. Folia opposita, ovata, acuminata, basi acuta, obtuse serrata, subhirsuta, venis primariis supra villosis, subtus pilosis (punctis excavatis). Petiolus mediocris, pilosus, supra sulco villosiore exaratus. Spica verticillata : verticillis sexfloris, pedicellis utrinque pedunculo ternis. Bracteæ deltoideæ angulis acuminatis, caducæ v. deciduæ, ante anthesin decussatæ.

“ Perianthium fere longitudine corollæ, basi gibbum, sensim ampliatus, bilabiatum : labium superius latius orbiculatum cum acumine, extus concavum, adscendens : labium inferius trifidum, dente intermedio emarginato deflexo. Corollæ tubus patens, longitudine calycis. Limbi labium alterum sursum spectans, latius, semiquadrifidum, obtusum, æquale; labium alterum deorsum spectans, angustius, longius, integerrimum, violaceo-maculatum. Filamenta filiformia, declinata, lateri infimo tubi adnata, calyce duplo longiora; lateralia intermediis parum breviora, prope basin exserentia processum subulatum, recurvum, villosum. Antheræ reniformes, compressæ. Germen quadripartitum, minimum. Stylus filiformis, staminibus parum longior, declinatus, versus apicem parum refractus. Stigma bifidum : laciniis subæqualibus, acutis. Calyx labiis conniventibus clausus. Semina quatuor, subrotunda, parva.”—*Schum. l. c.*

O. viridi affine videtur.

16. *O. ARISTATUM* (Blume Bijdr. 833).

Hab. in Java : circa Bataviam in graminosis *Blume.*

“ *O. foliis ovatis obtusis repando-crenulatis basi attenuatis integerrimis, margine et in venis infra puberulis, ramulis tetragonis et racemo subsimplici obverse pubescentibus, verticillis remotis sexfloris, bracteis ovatis acuminatis ciliatis sessilibus, calycis labio inferiore quadridentato, dentibus intermediis longiter aristatis.*”—*Blume l. c.*

17. *O. BRACHIATUM* (Blume Bijdr. 833).

Hab. in Java : in locis siccis circa Bataviam *Blume.*

“ *O. foliis lanceolato-ovatis utrinque acutiusculis supra basin remote serrulatis margine et in costis infra puberulis, ramis fastigiatis tetragonis obverse hispidulis, racemis simplicibus, verticillis distinctis sexfloris, bracteis ovatis petiolatis cum calyce pubescente ciliatis, calycis labio inferiore quadridentato, dentibus intermediis parum longioribus.*”—*Blume l. c.*

SECTIO II. HIEROCYUM.

Filamenta superiora basi fasciculo pilorum appendiculata. Racemi laxi graciles. Verticillastri sexflori. Pedicelli patentes, calycibus nutantibus.

18. *O. CARNOSUM* (Link et Otto), caule herbaceo subglabro, foliis petiolatis ovatis acutiusculis grosse serratis glabriusculis subcarnosis, floralibus bracteæformibus deciduis, racemis simplicibus multifloris, verticillastris 6-floris, calycibus campanulatis nutantibus glabris, fauce intus nuda, dentis supremi marginibus reflexis breviter decurrentibus, lateralibus truncatis, infimis setaceo-mucronatis, corollis calycem vix excedentibus, filamentis superioribus basi fasciculo pilorum appendiculatis.

Lumnitzera carnosæ. Spr. Syst. Cur. Post. 223 ?

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. v. c.*)

Inflorescentia *O. sancti*, at foliis et characteribus datis longe diversum. Caulis erectus, ramosus, glaber vel apicem versus tenuissime pubescens. Folia basi integerrima, cuneata v. rotundata, crassiuscula, subcarnosa, subtus nervosa, glandulosa; floralia sessilia, ovata, acuminata. Racemi 6-8-pollicares, verticillastris numerosis. Calyces ovato-campanulati, fructiferi pedicello longiores membranacei nervosi colorati, dente supremo ovato obtuso, lateralibus breviter mucronatis, infimis supremum subæquantibus. Corolla parva purpurascens, lobi 4 superiores erecti, obtusi, infimus planus obtusus superioribus paullo longior. Stamina 2 inferiora corolla sublongiora, filamentis integerrimis, 2 superiora multo breviora, filamentis basi pilorum fasciculo appendiculatis. Corolla inter stamina superiora pilosa. Antheræ loculis parallelis subconfluentibus. Achenia oblonga, subtriquetra, nigra, lævia. Gynobaseos glandula inferior ovario brevior. Styli lobi subæquales, subulati.

19. *O. SANCTUM* (Linn.! Mant. 85), caulibus pilosis, foliis petiolatis ovalibus obtusis dentatis pubescentibus nervis petiolisque pilosis, floralibus bracteæformibus sessilibus pedicello brevioribus, racemis gracilibus simplicibus vel basi ramosis, calycibus pedicello brevioribus nutantibus glabriusculis, intus fauce nuda, dente supremo obovato concavo breviter decurrente, corollis calycem vix superantibus, filamentis superioribus basi pilorum fasciculo appendiculatis.

Basilicum agreste. Rumph. Herb. Amb. 5. 265. t. 92. f. 2.

O. zeylanicum, perenne, &c. Burm.! Thes. Zeyl. 174. t. 80. f. 1, quoad flores.

O. zeylanicum, annuum, &c. Burm.! Thes. Zeyl. 174. t. 80. f. 2.

O. frutescens. Burm.! Fl. Ind. 129.

O. inodorum. Burm.! Fl. Ind. 130.

O. monachorum. Linn. Mant. 58.

Plectranthus monachorum. Spr. Syst. 2. 690.

O. tenuiflorum. Lam.! Willd.! et Auct., non Linn. ?

Lumnitzera tenuiflora. Spr. Syst. 2. 687.

O. tomentosum. Lam.! Dict. 1. 387.

O. villosum. Roxb. Hort. Beng. 44? non Weinm.

O. hirsutum. Benth.! in Wall. Pl. As. Rar. 2. 14.

Hab. in Indiæ orientalis siccis aridis: in omni India circa templa *Roxburgh*, in peninsula frequentissimum *Wight! Klein! &c.*, in Bengala *Leschenault!* in Ceylona! in Java *Blume*, in ins. Timor *Riedlé!* (*h. s. sp.*)

Stirps in India vulgaris, et dudum culta, ideo villositate staturaque valde variabilis. Tota planta sæpius purpurascit, in hortis Europæis herbacea, in loco natali herbacea annua, vel sæpius, teste *Roxburghio*, suffruticosa, inodora. Folia parva,

longe petiolata. Racemi laxi, 3-5-pollicares. Verticillastri 6-flori. Flores parvi. Corolla pallide purpurascens. Stamina breviter exserta.

20. *O. TENUIFLORUM* (Linn. ! Sp. 833. excl. syn.), caulibus herbaceis (?) adscendentibus ramosis pilosis, foliis longe petiolatis oblongis obtusiusculis crenatis basi subangustatis pubescentibus, racemis filiformibus basi subramosis, verticillastris paucifloris remotis, foliis floralibus lato-ovatis sessilibus, calycibus breviter pedicellatis subnutantibus glabriusculis, intus fauce nuda, dente supremo ovato obtuso basi breviter decurrente, inferioribus abbreviatis, corolla calyce subbreuiore.

Hab. in India orientali : in Malabaria *Linnæus*. (v. s. c. in herb. Linn.)

Ab *O. sancto* non differt nisi racemis brevioribus tenuissimis, foliis floralibus latioribus, floribus minimis subsessilibus. An *O. sancti* specimen hortense floribus semiabortivis? Omnia quæ vidi Lamarckii et aliorum recentiorum sub nomine *O. tenuiflori* ad *O. sanctum* referenda, ut etiam synonyma omnia a Linnæo citata. In herbario Burmanniano occurrit quoque sub hoc nomine specimen *Moschomatis polystachyi*.

21. *O. GRACILE*, caulibus adscendentibus pilosis superne paniculatis, foliis breviter petiolatis oblongo-ovatis obtusis crenatis basi angustatis pubescentibus, superioribus lanceolatis subsessilibus, floralibus bractæformibus sessilibus pedicello multoties brevioribus, racemis numerosis simplicibus, calycibus fructiferis pedicello longioribus declinatis, fauce intus villosa, dente supremo ovato obtuso breviter decurrente, corolla calyce subbreuiore, filamentis superioribus basi pilorum fasciculo appendiculatis.

Hab. in Africa tropica orientali : in ins. Zanguebar ! (v. s. sp. in herb. Hooker.)

Affine *O. sancto*, sed foliis angustioribus, floribus minoribus, et calycis fauce intus villosa distinctissimum. Racemi filiformes, subpaniculati. Folia floralia minuta. Calyces glabriusculi, nervis hispidulis, dentibus inferioribus lanceolato-setaceis, 2 infimis superiorem æquantibus, 2 lateralibus brevioribus. Corollæ lobi 4 superiores lati, breves, inferior oblongus, concavus, subdentatus. Styli lobus inferior complanatus. Achenia oblonga, pallida, lævia.

22. *O. TENELLUM*, glabrum, caule pusillo repente, foliis petiolatis ovato-rotundatis crenatis, racemis laxis simplicibus, verticillastris sexfloris, calycibus longe pedicellatis declinatis glabris, dente supremo ovato obtusissimo vix decurrente, fauce intus nuda, corollis vix calycem excedentibus, genitalibus exsertis, filamentis superioribus basi piloso-appendiculatis.

Hab. in Madagascaria *Lyall* ! (v. s. sp. in herb. Hook.)

Herba pusilla repens, habitu *Salviæ tenellæ* similis. Rami steriles repentes, sæpe pubescentes, florigeri adscendentes, 4-5-pollicares, glaberrimi. Folia fere *Linariæ cymbalariae*, tenera, glabra vel pilis raris hispidula, floralia minutissima. Flores minuti, longe pedicellati, 2-3 lin. longi. Corolla *O. sancti*. Achenia oblonga, lævia.

SECTIO III. GYMNOCYMUM.

Filamenta omnia nuda. Verticillastri 6-flori, vel rarius 10-flori. Pedicelli calyce breviores.

23. *O. MICRANTHUM* (Willd. Enum. 630), caule herbaceo erecto

ramoso subglabro, foliis petiolatis ovatis acutis serratis basi rotundatis cuneatisve subglabris, floralibus bracteæformibus deciduis, calyce fructifero deflexo oblongo, dente supremo obtuso concavo decurrente, alis pedicellum attingentibus, 4 inferioribus ovato-lanceolatis, 2 lateralibus brevissime infimis longius acuminatis, corolla inclusa, filamentis edentulis.

O. frutescens. Sieb. *Pl. Exs.*

O. americanum, quorund. non Linn.

O. pubescens. Mill. *Dict.*

Hab. in America æquinoctiali: in Jamaica *Fludyer!* in ins. Caribæis! in Nova Hispania *Moçino et Sessé!* in provincia Caracas! in Guiana *Parker!* et Cayenna *herb. Mus. Par.!* in Brasilia ad Maranhao *G. Don!* Rio Janeiro! et in ins. St. Catherinæ *Gaudi-chaud!* (*h. s. sp.*)

Caulis fere pedalis, obtuse tetragonus, tenuiter pubescens, demum glabratus. Folia glabra vel tenuissime pubescentia, subtus glandulosa, floralia sessilia lato-ovata, acuta, verticillastrum æquantia. Flores parvi. Calyx fructifer valde acutus, pedicello longior, ovato-oblongus, membranaceus, nervosus, glaber vel ad nervos tenuiter pubescens. Corolla calyce brevior. Stamina inclusa, filamentis omnibus integerrimis. Achenia ovato-subtriquetra, nigra.

24. *O. CAMPECHIANUM* (Mill.! *Dict. n. 5*), caule erecto villosa vel demum glabrato, foliis petiolatis ovatis vel ovato-lanceolatis acutis subserratis basi cuneatis angustatisve subtus canescentibus, petiolis nervisque hirsutis, floralibus bracteæformibus latis deciduis, calyce fructifero deflexo oblongo hispido, dente supremo obtuso concavo decurrente, alis pedicellum attingentibus, 4 inferioribus ovatis, lateralibus brevissime infimis longius aristatis, corolla breviter exserta, filamentis edentulis.

Hab. in America centrali: ad Campeachy *Miller!* in Nova Hispania *Moçino et Sessé!* (*v. s. sp. in herb. Banks et Lambert.*)

Affine *O. micrantho*, sed diversum caule, præsertim ad nodos, foliorumque nervis petiolisque hirsutis, et foliis minoribus subtus canescentibus vel canotomentosis.

25. *O. INCANESCENS* (Mart. in Spix und Mart. *Reise in Bras. 2. 787.*)

Hab. in Brasilia tropica: prope Bahiam *Martius.*

“*O. caule frutescente, ramis tetragonis strictis subfastigiatis retrorsum hispidulis foliisque ovato-lanceolatis basi attenuatis acutis incanescens, verticillis sexfloris in spicis elongatis remotiusculis, bracteis lanceolatis basi attenuatis, calycis labio superiore medio hirto barbato laciniis inferiores acutas æquante.*”

Species ex descriptione *O. campechiano* valde affinis.

26. *O. OVATUM*, caulibus erectis subramosis, foliis subsessilibus lato-ovatis subdentatis basi rotundatis glabriusculis vel hispidulis, floralibus bracteæformibus deciduis, racemis abbreviatis, calyce fructifero ovato inflato deflexo, dente supremo ovato-oblongo obtuso concavo fere ad basin calycis decurrente, inferioribus lato-ovatis breviter setaceo-acuminatis, corolla calycem vix excedente, filamentis edentulis.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Caules e basi perenni? plures, erecti, subramosi, semipedales pedalesve, villosi. Folia obtusiuscula, integerrima v. utrinque 1-2-dentata, basi rotundata, rigida, supra pilis raris hispidula, margine et subtus ad nervos ciliata, floralia bracteæformia, sessilia, lato-ovata, acuta, integerrima, calyce florifero sublongiora, fructifero breviora. Racemi 1-2-pollicares, verticillastris approximatis 6-floris. Calyx fructifer pedicello

longior, glaber v. pilis brevibus ciliatus, dentibus infimis subconnatis supremum æquantibus, lateralibus brevioribus. Corollæ lobi ovati obtusi. Stamina breviter exserta. Antheræ ovato-reniformes. Stylus apice breviter subulato-bifidus. Achenia pallida, subglobosa.

27. *O. NUDICAULE*, caule simplice nudo, foliis ad basin caulis approximatis vix petiolatis ovato-rotundatis pilosiusculis, racemis elongatis, calyce ovato deflexo, dente supremo ultra medium calycis decurrente, inferioribus setaceo-acuminatis, corolla calyce duplo longiore, filamentis edentulis.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto.*)

Caules e basi crassa lignosa plures, adscendentes, simplicissimi, nudi, erecti, acuti, tetragoni, glabri vel superne pubescentes, semipedales pedalesve. Folia omnia subradicalia, obtusa, crenata, basi rotundata v. parum angustata, crassa, subcarnosa, supra sparse subtus ad nervos pilosiuscula, subtus pallida, glandulosa, floralia bractæformia, calyce breviora, decidua. Racemus 4-6-pollicaris, verticillastris remotis 6-floris. Calyces pedicello sublongiores; fructiferos non vidi. Corolla campanulata, lobis 4 superioribus lato-ovatis subpatentibus, inferiori ovato oblongo declinato plano crenulato. Stamina exserta, superiora basi subdilatata, at integerrima. Antheræ ovato-reniformes. Stylus longe exsertus, apice breviter subulato-bifidus. Achenia non vidi.

28. *O. RIGIDUM*, ramis erectis strictis pubescentibus, foliis sessilibus amplexicaulibus lanceolatis acutis integerrimis basi rotundatis rigidis ciliatis, floralibus bractæformibus ciliatis, racemis laxis, verticillastris bifloris, calycis fauce intus nuda, dente supremo breviter decurrente, corolla vix calycem excedente, staminibus edentulis.

Hab. in Africa tropica in Angola! (*v. s. sp. in herb. Mus. Par.*)

Suffrutex videtur humilis, rigidus, strictus. Rami compresso-tetragoni, axillis pilosis, sulcis pubescentibus, angulis glaberrimis. Folia subcoriacea, nervosa, ad nervos pilis longis albidis ciliata, cæterum glabra, utrinque glandulosa, floralia sessilia, pedunculo quadruplo breviora. Racemi 3-4-pollicares, pauciflori, rachi pedicellis calycibusque glanduloso-pubescentibus. Calyces ovati, deflexi, pedicellum æquantes, purpurascens, nervosi, dens supremus lato-ovatus, acutiusculus, planus, laterales angustiores, ovati, acuti, superiorem æquantes, infimi paullo longiores, lanceolati, subulato-acuminati. Corollæ labium superius trilobum, lobo medio lato-ovato emarginato, inferius duplo longius, dilatatum, concavum. Achenia rotundato-compressa, subinflata.

29. *O. TERETICAULE* (Poir.! Dict. Suppl. 1. 595), caule suffruticoso villosus, foliis breviter petiolatis oblongis irregulariter serratis basi longe angustatis utrinque pubescentibus, floralibus conformibus flore longioribus, supremis persistentibus, calycibus declinatis tubulosis hispidis, dente supremo breviter decurrente, corollis vix calyce longioribus, staminibus inclusis, filamentis edentulis.

O. Thonningii, No. 2. *Schum.! Pl. Guin. in Act. Soc. Hafn.* 4. 39.

Hab. in Africa tropica: in Guinea *Thonning!* Senegambia *Le Prieur et Perrottet!* (*h. s. sp.*)

Suffrutex diffusus v. divaricatus, ramis teretibus tomento cano villosis. Folia obtusiuscula, irregulariter serrata v. crenata, utrinque pubescentia, floralia conformia, intermedia decidua, suprema persistentia flores longe superantia. Verticillastri remoti, 6-flori. Pedicelli 2-3 lin. longi. Calyces declinati, demum reflexi, basi hispidi, 10-nervi, dentibus membranaceis, supremo ovato marginibus revolutis, inferioribus inflexis acutissimis, lateralibus lanceolatis, infimis subulatis, fauce intus nuda. Corollæ lobi superiores 4 ovati, infimus paullo longior, angustior. Genitalia tubo inclusa. Filamenta superiora basi nuda. Stylus obtusus, breviter bifidus.

30. *O. BRACTEOSUM*, caule herbaceo erecto piloso-hispido, foliis breviter petiolatis oblongo-lanceolatis acutiusculis remote serratis basi

angustatis supra glabriusculis subtus hispidulis, floralibus bracteæformibus calyce duplo triplove longioribus cuneatis coloratis, calycibus fructiferis reflexis ovatis subinflatis, dente supremo ovato breviter decurrente, marginibus revolutis, lateralibus ovatis breviter mucronatis, infimis longe subulatis, staminibus breviter exsertis, filamentis edentulis.

Hab. in Africa occidentali tropica: in arvis Lambsar Senegambiæ *Le Prieur et Perrottet!* (v. s. sp. in herb. *Delessert.*)

Herba 1-1½-pedalis, parum ramosa, ramis obtuse tetragonis. Folia 1-2-pollicaria, subtus pallida. Inflorescentia *O. basilici*, at folia floralia multo longiora, petiolata, late ovato-cuneata, integerrima, sæpius colorata, glabra vel pubescentia, demum decidua. Calyces fructiferi ut in *O. basilico* ad axin arcte adpressi, sed breviter hispidi nec ciliati, dentis superioris forma fere *O. gratissimi*. Corollæ labium superius truncatum, breviter quadridentatum, inferius paullo longius, dilatatum, concavum. Achenia orbiculata, subcompressa, lævia.

31. *O.?* *DIFFUSUM* (Benth.! in Wall. Pl. As. Rar. 2. 14), caule suffruticoso diffuso villosus, foliis petiolatis ovatis crenatis basi rotundato-cuneatis tomentoso-villosis, racemis gracilibus paucifloris, corollis calyce vix duplo longioribus, tubo recto, fauce subæquali, staminibus corolla brevioribus, filamentis edentulis.

Hab. in India orientali: in aridissimis rupestribus peninsulæ circa Tanjore Tondiman et Tenivelly *Wight!* ad Palamcottah *Klein!* (h. s. sp. e *Mus. Angl. Ind.*)

Suffrutex humilis, ramosissimus, omnibus partibus pubescentia subviscosa vestitis. Folia vix 8-10 lineas longa, 6-8 lata, forma fere *O. sancti* sed ad basin magis cuneata, floralia minutissima. Racemi 2-3 poll. longi. Verticillastri pauci, sæpius 2-4-flori, rarius 6-flori, subsecundi. Calyx pubescens, intus fauce pilis clausa, floriger campanulatus, dente supremo orbiculato, plano, inferioribus minutis; fructifer nutans, oblongus, striatus, dente supremo adscendente marginibus revolutis, inferioribus lanceolato-subulatis porrectis. Corolla 2 vel 2½ lineas longa, glabra, lobo supremo latiore integro, 2 lateralibus infimoque vix concavo ovatis. Stamina brevissima, inclusa, filamentis integris. Stylus inclusus, apice obtusus, demum bifidus. Achenia oblonga, oculo armato minutissime punctata.—An *Orthosiphonis* species?

32. *O.?* *MEMBRANACEUM*, caule erecto villosus, foliis breviter petiolatis ovatis obtusis crenatis basi rotundatis rugosis villosis, floralibus infimis conformibus superioribus bracteæformibus lanceolatis membranaceis villosis, racemis simplicibus, verticillastris sub-10-floris, calycibus oblongis pubescentibus, dente supremo orbiculato vix decurrente, inferioribus lanceolato-subulatis, staminibus corolla brevioribus, filamentis edentulis.

Hab. in Africa tropica: ad Guipungo Angolæ! (v. s. sp. in herb. *Mus. Par.*)

Caulis herbaceus videtur. Folia pallida, minute glandulosa, floralia sessilia. Racemi 4-6-pollicares. Calycis dens supremus membranaceus, flavescens, acutus, rarius truncatus vel brevissime denticulatus, infimi lateralibus paullo longiores. Corolla calycem vix superans, labium superius trifidum, lobo medio lato orbiculato emarginato, inferius breve, orbiculatum, concavum, integerrimum. Stylus breviter bifidus, lobis subcomplanatis.

Species Sectionis III non satis nota.

33. *O. SUFFRUTICOSUM* (Schum. Pl. Guin. in Act. Acad. Hafn. 4. Suppl.)

O. Thonningii (No. 6). *Schum. l. c.* 4. 43.

Hab. in Africa occidentali tropica *Thonning!* (v. s. sp. sine fl. in herb. Reg. Hafn.)

“*O. foliis ovatis obtusiusculis grosse serratis, racemis teretibus, bracteis ciliatis minutis, denticulo utrinque fornice corollæ.*

“*Radix perennis. Caulis suffruticosus, ramosus, prismatico-tetragonus, pubescens, linea tomentosa inter petiolos, pedalis. Folia opposita, oleracea, ovata, obtusiuscula, leviter in petiolum desinentia, grosse et obtuse serrata, venosa, glabra, vasis utrinque pilosiusculis, pollicaria, inodora. Spica terminalis, etiam ante anthesin teres: verticillis sexfloris, pedicellis ternis subtomentosis; floribus cernuis parvis albis. Bracteæ ovatæ, acutæ, ciliatæ, parvæ, deflexæ.*

“*Perianthium subtus basi gibbum, supra planum, bilabiatum; labium superius latius, orbiculatum, planum; labium inferius quadridentatum (dentibus intermediis longioribus subulatis). Corollæ tubus brevis, ampliatus in faucem. Limbus bilabiatum; labium alterum sursum spectans, latius, trifidum, obtusum: lobo medio parum majori; vix calyce longius. Labium alterum deorsum spectans, angustius, longius, integerrimum, ovatum, fornicatum, basi utrinque denticulo oculo armato conspicuo. Filamenta duo parum longiora, edenticulata, declinata, corolla breviora. Antheræ subrotundæ. Germen minimum. Stylus filiformis, longitudine staminum, declinatus. Stigma bifidum. Calyx adultus deflexus, labio inferiori conniventi clausus. Semina quatuor in fundo calycis, ovata.”*

Habitus Orthosiphonis, sed flores non vidi.

Species quoad genus vel sectionem dubiæ.

34. *O. AFRICANUM* (Lour. Fl. Cochin. 370).

Hab. in Africæ orientalis arenariis *Loureiro.*

“*O. foliis lanceolatis integerrimis pilosis, spicis terminalibus verticillatis interruptis.*

“*Caulis annuus, pedalis, erectus, tetragonus, pilosus, ramis paucis adscendentibus. Folia ovato-lanceolata, integerrima, pilosa, opposita, petiolata. Flos albus, minutus, resupinatus, spicis verticillatis erectis longis terminalibus, verticillis interruptis hirsutis. Tota planta suave olet.”—Lour. l. c.*

35. *O. ZATARHENDI.*

O. β zatarhendi. Forsk. Fl. Æg. Arab. 110.

Hab. in Arabia Felici: in montibus mediis inter Dorebat Taæs *Forsköl.*

“*O. foliis carnosis cuneato-oblongis utrinque subquadridentatis villosis sessilibus.*

“*Caulis fruticosus, diffusus, pedalis, brachiatus. Rami teretes, villosi, conferti, brachiati, articulati, articulis unguem longis. Folia opposita, sessilia, semipollicem remota, subpollicaria, crassa, basi attenuata, integra, superius utrinque 4-dentata, apicis dente obtuso, villosiuscula, supra cana, subtus punctis ferrugineis aspersa, intus pulposa. Pedunculi axillares, terni, uniflori, breves, filiformes. Flores non vidi. Valde fragrans. Dicunt edule esse. Simiis quoque gratum.”—Forsk. l. c.*

36. *O. VAALÆ* (Forsk. Fl. Ægypt. Arab. 111).

Hab. in Arabia Felici: e regionibus montosis orientem versus affertur venale Beit el fakih *Forsköl.*

“*O. caule tetragono brachiato, radicibus filamentosis, fructu piloso.*

“*Tantæ fragrantiae sunt radices, ut incolæ soleant affricando communicare odorem ipsis odoriferis Moscho, Zibeto, &c. et suaveolentia hæc gestant secum in capsula, ut semper gratum spireat odorem.”—Forsk. l. c.*

37. *O. MACROSTACHYUM* (Poir. Dict. Suppl. 1. 392).

Hab. in India orientali: ad Pondichery *Commerson.*

“*O. caule suffruticoso, foliis ovato-sublanceolatis obtusis subdentatis subglabris, spica densa terminali.*

“Caules duri, glabri, ramosissimi, rami pilosi. Folia vix petiolata, parva, brevia, ovalia vel ovali-oblonga, subcarnosa, viridia, utrinque fere glabra, obtusa, vix dentata. Spicæ terminales, 1 poll. et ultra longæ, cylindricæ, obtusæ, floribus densis, calycibus pilis brevibus hirsutis.”—*Poir. l. c.*

38. *O. viscosum* (Roth. Nov. Sp. Pl. 274).

O. menthoides. Heyne MSS.

Plectranthus viscosus. Spr. Syst. 2. 690.

Hab. in India orientali Heyne.

“*O. viscosum*, pilosissimum, foliis obovato-subrotundis grosse et obtuse serratis subtus reticulato-rugosis, racemo simplici, bracteis ovatis petiolatis, calycis labio inferiori quadridentato, dentibus intermediis longioribus.

“Tota planta primo intuitu e fusco vel griseo tomentosa videtur, at pilis capitatis densissime obsessa est. Caulis erectus, palmaris et longior, basi sublignosus, crassitie fili emporetici tenuioris. Folia petiolata, obovato-subrotunda, grosse et obtuse serrata, basi in petiolum plerumque paullo breviora attenuata, subtus præsertim pilis densissimis capitatis quasi tomentosa, et reticulo venarum eminentiore rugulosa magnitudine *Origanum Majoranæ*. Racemus in caule ramisque terminalis, simplex, laxis, elongatus. Verticilli remoti, inferiores plerumque 4- superiores 6-flori. Bracteæ ad quemvis verticillum duæ, oppositæ, ovatæ, integerrimæ, pedunculis triplo breviores. Pedunculi setacei, longitudine calycis, simplices, uniflori. Calyx nervosus, venoso-reticulatus, bilabiatus. Labium superius ovatum, apice subangulosum, post florescentiam demum colore sanguineo suffusum, inferius 4-dentatum, dentibus lineari-subulatis, 2 intermediis dimidio longioribus labium superius supereminentibus. Corolla sanguinea, bilabiata. Labium superius rotundatum, integerrimum, inferius trilobum, lobis subæqualibus, intermedio paullo latiore. Stamina didynama, inclusa. Filamenta purpurea, fauci corollæ infixæ et in tubum decurrentia, edentula. Antheræ reniformes, flavidæ.”—*Roth. l. c.*

An *Orthosiphon* species?

39. *O. acutum* (Thunb. Fl. Japon. 248).

Hab. in Japonia Thunberg.

“*O. racemis* filiformibus, foliis ovatis acuminatis serratis, bracteis hirtis.

“Caulis tetragonus, erectus, glaber, lævis. Folia petiolata, ovata, acuminata, serrata, inferne integra glabra, subtus pallida venosa, 2-poll. lata, tripollicaria. Petiolus folio paullo brevior carina subtus hirtus. Racemi filiformes, digitales et ultra. Bracteæ ovatæ, acutæ, hispidæ.”—*Thunb. l. c.*

40. *O. crispum* (Thunb. Fl. Jap. 248).

Siso s. e. Purpura, vulgo Murassakki s. e. nobilis. *Kæmpf. Am. Exot. Fasc. 5. p. 784. ex Thunb.*

Hab. in Japonia: circa Nagasaki culta Thunberg.

“*O. racemis* terminalibus, foliis ovatis serratis crispis, calycibus hispidis.

“Caulis tetragonus, erectus, villosus, ramosus. Rami decussati, cauli similes. Folia petiolata, ovata, acuminata, serrata, inferne integra, glabra, purpurascens, crispata, pollicaria. Petiolus longitudine folii, laxis, villosus. Racemi terminales, laxi, digitales et spithamei. Bracteæ oblongæ, acuminatæ, læves, glabræ. Calyces hispidi. Decocto hujus tingunt Japonenses radices Raphani, Rapæ, et fructus varios colore saturate rubro.”—*Thunb. l. c.*

41. *O. rugosum* (Thunb. Fl. Jap. 249).

Hab. in Japonia Thunberg.

“*O. racemis* terminalibus, foliis ovatis acutis serratis subtus rugosis.

“Caulis tetragonus, sulcatus, tenuissime tomentosus, bipedalis et ultra. Rami oppositi, cauli similes, patuli. Folia ovata, acuminata, serrata, subtus rugosa et pallida, superioribus sensim minoribus. Florum racemi terminales, contracti.”—*Thunb. l. c.*

42. *O. scabrum* (Thunb. in Trans. Soc. Linn. Lond. 2. 338).

Ocymum punctatum. Thunb. Fl. Jap. 249.

Hab. in Japonia *Thunberg.*

"*O. racemis simplicibus erectis, foliis ovatis subtus punctatis.*

"*Caulis erectus, paniculatus, tetragonus, uti tota planta piloso-scabridus, pedalis et ultra. Folia oblonga, acuta, serrata, subtus minutis poris punctata. Racemi terminales, simplices, floribus oppositis, digitales. Bracteæ flores distinguentes setaceæ.*"—*Thunb. l. c.*

43. *O. INFLEXUM* (*Thunb. Fl. Jap. 249*).

Hab. in Japonia *Thunberg.*

"*O. panicula terminali racemosa, caule ramisque flexuosis.*

"*Caulis herbaceus et rami flexuoso-erecti, apice inflexi, tenuissime tomentosi, tetragoni, pedales. Folia ovata, acuta, serrata, tenuissime scabra, unguicularia. Panicula racemosa, coarctata. Usus pulveris hujus pro suffimigiis idolorum.*"—*Thunb. l. c.*

44. *O. VIRGATUM* (*Thunb. Fl. Jap. 250*).

Hab. in Japonia: prope Nagasaki *Thunberg.*

"*O. racemis verticillatis virgatis, foliis oblongis serratis.*

"*Caulis tetragonus, profunde sulcatus, tenuissime tomentosus, flexuoso-erectus, ramosus. Rami cauli similes, inferiores remotiores, superiores virgati. Folia obovato-oblonga, serrata, tenuissime tomentosa, pollicaria et ultra. Racemi florum in ramis terminales, ex verticillis sexfloris frequentibus digitales erecti.*"—*Thunb. l. c.*

Species non descriptæ.

O. CINEREUM. *Br. in App. to Salt Abyss.*

O. HOLOSERICEUM. *Breit. ex Steud. Nom. Bot. 559.*

Species e genere excludendæ.

O. ACROCEPHALUM. *Blume.* = *Acrocephalus Blumei.*

O. ASPERUM. *Roth.* = *Coleus barbatus.*

O. CAPITATUM. *Roth.* = *Acrocephalus capitatus.*

O. CAPITELLATUM. *Linn.* = *Acrocephalus capitatus.*

O. COETSA. *Spr.* = *Plectranthus Coetsa.*

O. DENSIFLORUM. *Roth.* = *Plectranthus densiflorus.*

O. DIMIDIATUM. *Schum.* = *Moschosma dimidiatum.*

O. FASTIGIATUM. *Roth.* = *Salvia plebeia.*

O. GRANDIFLORUM. *Blume.* = *Orthosiphon stamineus.*

O. HADIENSE. *Forsk.* = *Coleus hadiensis.*

O. MADAGASCARIENSE. *Pers.* = *Plectranthus madagascariensis.*

O. MAYPURENSE. *Roth.* = *Plectranthus cordifolius.*

O. MENTHOIDES. *Linn.* = *Geniosporum prostratum.*

O. MOLLE. *Ait.* = *Plectranthus mollis.*

O. MONADELPHUM. *Roth.* = *Coleus Heynei.*

O. MONOSTACHYUM. *Beauv.* = *Plectranthus Palisoti.*

O. PANICULATUM. *Pers.* = *Coleus Persoonii.*

O. POLYCLADON. *Link.* = *Moschosma ocymoides.*

O. POLYSTACHYON. *Linn.* = *Moschosma polystachyum.*

O. PROSTRATUM. *Linn.* = *Geniosporum prostratum.*

O. PUNCTATUM. *Linn.* = *Plectranthus punctatus.*

O. RACEMOSUM. *Thunb.* = *Plectranthus Thunbergii.*

O. SALVIOIDES. *Roth.* = *Plectranthus salvioides.*

O. SCUTELLARIOIDES. *Linn.* = *Coleus scutellarioides.*

O. SYLVATICUM. *Schum.* = *Geniosporum Palisoti.*

O. TENUIFLORUM. *Burm.* = *Moschosma polystachyum.*

O. TERNIFOLIUM. *Spreng.* = *Plectranthus ternifolius.*

O. THYMIFLORUM. Roth. = Orthosiphon glabratus.

O. TRISTE. Roth. = Orthosiphon rubicundus.

O. VERTICILLATUM. Linn. = Plectranthus Thunbergii.

O. ZATARHENDI (α). Forsk. = Coleus zatarhendi.

II. GENIOSPORUM.

Ocymi sp. Linn. et Auct.

Geniosporum. Wall. MSS. Benth. in Bot. Reg. ad calc. n. 1300.

Calyx ovato-tubulosus, margine membranaceus, irregulariter sub-5-dentatus, fructifer suberectus vel declinatus, basi sæpius transverse rugosus, fauce intus nuda, dente supremo non decurrente, lateralibus cum supremo et infimis invicem sæpe coalitis. Corolla tubo recto calyce subbreviore, fauce campanulata, subbilabiata, labio superiore quadrifido inferiore vix longiore declinato integerrimo subplano. Stamina 4 declinata, didynama, inferioribus longioribus. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice breviter bifidus, lobis sæpius complanato-dilatatis, stigmatibus submarginalibus. Achenia lævia, vel sub lente rugosula.—Herbæ perennes vel annuæ, basi sæpius procumbentes. Verticillastri multiflori laxè spicato-racemosi, racemis subsimplicibus. Folia floralia basi sæpius cartilaginea, alba vel flavescentia. Flores parvi.

All the species of the first section are East Indian; the *Platostoma* is from tropical Africa.

The corolla of this genus is that of *Ocymum* and *Moschosma*, but in habit it is very different from either; and with this difference in habit, the form of the calyx and the many-flowered verticillasters appear to me sufficient characters to distinguish it generically from *Ocymum*. The calyx, inflorescence, and style, easily separate it from *Moschosma*. I have some doubt as to the propriety of its junction with *Platostoma*, which, with a similar habit and other characters, has a different calyx; but this character alone can scarcely be considered as constituting more than a sectional distinction.

CONSPECTUS SPECIERUM.

Sect. 1. GENIOSPORUM. Calycis dentes 2 infimi liberi.

Folia basi rotundata vel cordata.

Folia petiolata 1. G. MADAGASCARIENSE.

Folia sessilia 7. G. THYMIFOLIUM.

Folia basi angustata.

Folia superiora ovata vel ovato-oblonga . . . 2. G. STROBILIFERUM.

Folia superiora lanceolato-oblonga vel linearia.

Calycis fructiferi labium inferius inflexum . . . 3. G. PARVIFLORUM.

Calycis fructiferi dentes omnes erecto-patentes.

Rami floriferi erecti stricti. Racemi

breves densi 4. G. ELONGATUM.

Rami floriferi adscendentes. Racemi

elongati laxi.

Glaberrimum 5. G. GRACILE.

Piloso-hispidum 6. G. PROSTRATUM.

Sect. 2. PLATOSTOMA. *Dentes calycini in labia 2 subintegra coaliti.*

Species unica 8. G. PALISOTI.

SECT. I. GENIOSPORUM.

Calycis dentes 2 infimi liberi.

1. G. MADAGASCARIENSE, caule suffruticoso procumbente ramoso, foliis petiolatis ovatis obtusiusculis crenatis basi rotundatis v. cordatis rugosis utrinque villosulis, floralibus bractæformibus ovatis acutis basi albidis.

Hab. in Madagascaria: in monte Tanonarivan provinciæ Emirnensis *Bojer!* (v. s. sp. in herb. *Hook. et Mus. Par.*)

Caulis fruticosus, procumbens, obtuse tetragonus, glaber, ramis junioribus brevissime rufo-pubescentibus. Folia petiolata, subpollicaria, ovata, obtusiuscula, crenata, basi rotundata, inferiora subcordata, juniora cuneata, utrinque villosula rugosula, suprema ut floralia basi albida; floralia parva, bractæformia, ovata, acuta, sessilia. Verticillastri distincti, 10-flori, racemosi, racemis 2-4 poll. longis. Calyces subsessiles, floriferi campanulati, corolla dimidio breviores, fructiferi suberecti, tubulosi, glabri, striati, transversim rugosi, dentibus brevibus, superiore lato-ovato patente non decurrente, 4 inferioribus lato-lanceolatis erectis. Corollæ tubus basi tenuis, fauce campanulata, lobis patentibus, 4 superioribus ovatis, inferiore declinato lineari-cuneato, concaviusculo. Genitalia exserta. Achenia lineari-oblonga, sub lente rugosula nigra.

2. G. STROBILIFERUM (Wall. ! Pl. As. Rar. 2. 18), caule erecto ramoso, foliis subsessilibus ovato-oblongis utrinque angustatis dentatis asperis supra hispidulis subtus glabriusculis, verticillastris multifloris in apice ramorum spicatis, infimis subremotis, foliis floralibus ovatis acuminatis flores superantibus, calycibus subsessilibus, fructiferis erectis striatis tubulosis basi transverse rugosis, ore membranaceo irregulariter 5-dentato.

Plectranthes colorata. Don. *Prod. Fl. Nep.* 116.

Hab. in India orientali: in montosis Napaliæ et Silhet *Wallich!* (h. s. sp. e *Mus. Angl. Ind.*)

Caulis basi fruticosus, ramis elongatis erectis. Folia caulina 2-3-pollicaria, basi in petiolum brevissimum attenuata, superiora minora et floralia basi sæpius alba. Racemi spiciformes, 3-4-pollicares; verticillastri approximati v. infimi parum distantes. Calyx sæpius subbilabiatus, fructifer lineas 3 longus, labii superioris dente media ovata obtusa, lateralibus minutis, labio inferiore brevior bidentato. Corolla vix calyce longior; labium superius late 4-fidum, inferius subbrevior anguste lanceolatum. Genitalia corolla subbreviora.

3. G. PARVIFLORUM (Benth. ! in Wall. Pl. As. Rar. 2. 18), caule erecto ramoso, foliis oblongo-lanceolatis acutis utrinque angustatis serratis strigoso-hispidulis, racemo elongato laxo multifloro, calycibus pedicellatis, fructiferis declinatis basi transverse rugosis, ore bilabiato, labio superiore tridentato, dente medio majore ovato, inferiore integerimo inflexo calycem claudente.

Hab. in India orientali: in montibus Silhet *Wallich!* (h. s. sp. e *Mus. Angl. Ind.*)

Caulis pedalis sesquipedalisve inferne glaber, superne pilis raris adpressis hispidulus, et ad axillos foliorum caulinorum et floralium fasciculo pilorum munitus. Folia in petiolum brevem attenuata, acuminata, irregulariter et acute dentata,

basi cuneata integerrima, supra et ad nervos strigoso-hispidula, floralia ovata, acuminata, floribus subbreviora, supra glaberrima, subtus hispidula. Racemi 3-6-pollicares, verticillastris laxis subremotis 15-20-floris. Pedicelli calyce longiores, erecti, graciles, glabri. Calyces per anthesin minuti, hispidi, fructiferi vix lineas 2 longi, basi hispiduli, labiis membranaceis glabris. Corolla parva, staminibus exsertis.

4. *G. ELONGATUM*, caule basi prostrato, ramisque elongatis suberectis pubescentibus, foliis breviter petiolatis oblongo-lanceolatis acutis serratis basi attenuatis hispidulis, verticillastris multifloris approximatis spicatis, calycibus breviter pedicellatis, fructiferis subdeclinatis ovatis basi striatis transverse rugosis, ore contracto, dente superiore ovato membranaceo obtuso, 4 inferioribus minoribus acutis.

Rhinanthus indica. *Burm. ! Fl. Ind. 131. t. 39. f. 1.*

Hab. in Ceylonæ montibus *Macrae ! (v. s. sp. in herb. Lindl.)*

Habitu *G. prostrato* affine, differt caulibus elongatis minus foliosis angulis vix callosis pubescentibus, racemis densioribus. Pedicelli brevissimi. Folia floralia lato-ovata, basi albida, acuta. Calyx magnitudine calycis *G. prostrati*, sed ore vix dilatato, dente supremo ovato obtuso, 2 lateralibus distinctis anguste lanceolatis acutis, 2 infimis subconformibus.

5. *G. GRACILE*, glaberrimum, caulibus prostratis ramosissimis, foliis oblongo-linearibus subserratis basi longe angustatis, verticillastris multifloris laxe racemosis inferioribus remotis, pedicellis capillaceis calyce subduplo longioribus, calycibus tubulosis basi striatis transverse subrugosis, ore membranaceo acute quinquedentato subbilabiato.

Hab. in India orientali: ad littora maris prope Colombo Ceylonæ *Macrae !* et in Coromandeliam *Klein ! (h. s. sp. e Mus. Soc. Hort. Lond.)*

Affine *G. prostrato*, sed primo intuitu glabritie et foliis angustioribus distinguendum. Inflorescentia *G. prostrati*, sed laxior. Calyx paullo et pedicelli duplo longiores. Corollæ minutæ, genitalibus breviter exsertis. A *G. elongato* caulibus prostratis et racemis elongatis differt.

6. *G. PROSTRATUM* (*Benth. ! in Wall. Pl. As. Rar. 2. 18*), caule prostrato ramisque hispidis, foliis petiolatis oblongo-lanceolatis inferioribus subovatis supremis lanceolato-linearibus serratis basi angustatis, verticillastris multifloris spicatis inferioribus subremotis, calycibus pedicellatis, fructiferis declinatis basi striatis transverse subrugosis, ore membranaceo irregulariter bilabiato, labio superiore tridentato dente medio majore, inferiori erecto bidentato.

Katu-tumba. Rheede Hort. Mal. 10. 183. t. 92 ?

Mentha zeylanica, &c. Burm. Thes. Zeyl. 158. t. 70. f. 2.

Thymus indicus. Burm. ! Fl. Ind. 129.

Ocymum menthoides. Burm. ! Fl. Ind. 129. Linn. Mant. 84.

Ocymum prostratum. Linn. ! Mant. 566.

Lumnitzera prostrata. Spr. Syst. 2. 687.

Hab. in India orientali: in maritimis Coromandeliam ! et Ceylonæ ! frequens (*h. s. sp. e Mus. Angl. Ind. &c.*)

Caulis prostratus, ramosissimus, hispidus, angulis subcallosis glaberrimis. Folia parva, semipollicem ad pollicem longa, lineas 3-4 lata, acute et remote serrata. Racemi 2-4 pollices longi, spiciformes. Verticillastri 10-20-flori, inferiores remotiusculi, supremi approximati. Folia floralia ovata, acuminata, sessilia, basi albida, submembranacea. Pedicelli calyce longiores, graciles, erecti v. subincurvi. Calyces parvi, fructiferi vix $1\frac{1}{2}$ lineas longi, basi striati hispiduli, superne contracti, ore dilatato membranaceo. Corolla minuta, calyce vix duplo longior, tubo brevissimo incluso. Stamina breviter exserta.

7. *G. THYMIFOLIUM*, caule herbaceo basi procumbente pubescente,

foliis sessilibus ovatis obtusis crenatis, floralibus subconformibus minoribus, supremis bracteisque albido-cartilagineis, verticillastris distantibus, calycibus subsessilibus irregulariter bilabiatis, labio superiore ovato integro vel basi utrinque dentato, inferiore integro vel bidentato.

Hab. in Madagascaria: in provinciæ Emirnensis montibus *Bojer!* *Lyall!* (v. s. sp. in herb. Hook.)

Caules basi procumbentes, elongati, superne adscendentes, ramosi, tenues. Folia vix ultra semipollicem longa, basi rotundato-cuneata, supra hispidula, subtus ad nervos elevatos villosula, cæterum glabriuscula; floralia suprema bracteæformia, minuta. Racemi graciles, interrupti. Verticillastri globosi, remotiores quam in *G. prostrato*, at flores pauciores sessiliores. Calyx magnitudine calycis *G. prostrati*, fructifer magis auctus, dentibus obtusioribus. Corolla calycem breviter excedens. Stamina breviter exserta.

SECTIO II. PLATOSTOMA.

Dentes calycini in labia 2 subintegra coaliti.

8. *G. PALISOTI*, caule erecto pubescente, foliis petiolatis ovatis basi rotundato-cuneatis, floralibus verticillastro vix longioribus, racemo gracili, calycis labiis membranaceis subintegris.

Platostoma africanum. *Pal. de Beauv.! Fl. Ow. et Ben. 2. 61. t. 95. f. 2.*

Ocymum sylvaticum. *Schum. Pl. Guin. in Act. Acad. Hafn. 4. 44.*

Hab. in Africa tropica: in regno Benin *Palisot de Beauvois*, ad Sherwood's Creek in Congo *Chr. Smith!* in sylvis ad Aquapim frequens *Schumacher.* (v. s. sp. in herb. *Vahl* et in herb. *Pal. de Beauv. nunc Delessert.*)

Annua. Caulis herbaceus, subsimplex, parce pubescens, ramis junioribus villosis. Folia (*Moschosmatis polystachyi*) obtusa, crenata, glabriuscula, pilis raris hispidula vel pubescentia; floralia bracteæformia, acuminata. Racemus simplex, 3-4-pollicaris. Verticillastri laxi, sub-10-flori. Pedicelli tenues, 2 lin. longi. Flores parvi. Calyx ovatus, fructifer declinatus, bilabiatus, labiis membranaceis obtusis integris (dente superiore ovato elongato basi non decurrente, lateralibus truncatis, infimis coalitis), superiore patente, inferiore calycem claudente v. demum patente, fauce intus nuda. Corollæ tubus calycem vix superans, faux subæqualis, labium superius 4-fidum, inferius declinatum, concavum, basi angustatum, superiori vix longius. Genitalia glabra, corollam æquantia. Filamenta libera, edentula. Stylus breviter bifidus (?).—Specimina *Palisotiana* villosiora sunt quam *Vahl*iana.

III. MESONA.

Mesona. *Blume Bijdr. 838.*

“Calyx bilabiatus, labio superiore diviso inferiore minimo demum inflexo. Corollæ labium superius fornicatum, inferius longius indivisum. Stamina didynama declinata, quorum breviora basi appendiculata. Antheræ uniloculares, imberbes.

“Genus medium inter *Ocymum* et *Scutellariam.*”—*Blume l. c.*

Generi *Geniosporo* *Wallichii* valde affine videtur, at staminibus brevioribus basi appendiculatis distinctum. Ab *Ocymo* calycis labio superiore diviso et inflorescentia differt.

1. *M. PALUSTRIS* (*Blume Bijdr. 839.*)

Hab. in Javæ paludosis : circa Buitenzorg *Blume*.

“Herba inodora, foliis ovato-oblongis dentatis rugosis pilosiusculis, floribus dense verticillato-spicatis, verticillis bracteatis, pedicellis fasciculatis.”—*Blume l. c.*

IV. ACROCEPHALUS.

Ocymi sp. *Linn. et Auct.*

Acrocephalus. *Benth. in Bot. Reg. vol. 15. ad calc. n. 1300.*

Calyx per anthesin ovatus, fructifer elongatus, tubulosus, basi gibbus, bilabiatus, labio superiore integro subplano, inferiore integro vel quadridentato, fauce intus nuda. Corolla calycem subæquans, subbilabiata, labio superiore quadridentato, inferiore integro, lobis omnibus fere æqualibus. Stamina 4, declinata. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice breviter bifidus, lobo inferiore subdilato complanato, stigmatibus submarginalibus. Achenia glabra, lævia.—Herbæ. Flores parvi, in capitula subglobosa terminalia dense imbricati.

An East Indian genus, differing from *Ocymum*, *Geniosporum*, and *Moschosma*, by the form of the calyx, and more especially in inflorescence. The form of the corolla distinguishes it from all other *Ocymoideæ*.

1. *A. CAPITATUS* (*Benth. in Wall. Pl. As. Rar. 2. 18*), caule procumbente foliisque ovatis subglabris, calycis labio inferiore 4-dentato.

Prunella indica. Burm. ! Fl. Ind. 130.

O. capitellatum. Linn. Mant. 276.

O. capitatum. Roth. Nov. Pl. Sp. 276.

Lumnitzera capitata. Spr. Syst. 2. 687.

Hab. in India orientali: in peninsula circa Travancore et Courtallum *Klein !* ad Monghyr et Goalpara *Hamilton !* in Napalia *Wallich !* in regno Burmanico ad montem Taong Dong *Wallich !* in Java *Leschenault !* in China *Willdenow. (h. s. sp. e Mus. Angl. Ind.)*

Caulis tenuis, basi ramosissimus, ramis adscendentibus glabris vel utrinque linea pilosa notatis. Folia petiolata, oblongo-ovata, remote serrata, basi angustata, integerrima, glabra, floralia sub capitulo 2-4 ovata subsessilia capitulo longiora, in capitulo minutissima. Capitula ovata, terminalia v. axillaria, pedunculata vel sessilia, e verticillastris 6-floris densissime imbricatis composita. Calyx per anthesin vix linearis, fructifer tubulosus, fere semipollicaris, scariosus, glaber, labio superiore convexo inferioris dentibus subulatis ciliatis. Corolla calycem æquans. Stamina inclusa.

2. *A. BLUMEI*.

Ocymum acrocephalum. Blume Bijdr. 834.

Hab. in Javæ graminosis humidis circa Rompieu *Blume*.

“*O. caule diffuso tetragono, foliis lineari-lanceolatis grosse serratis, floribus dense capitatis terminalibus, bracteis ovatis nervosis cinctis.*”—*Blume l. c.*

An ab *O. capitato* distinctum?

3. *A. VILLOSUS*, caule erecto foliisque piloso-hirsutis, calycis labio inferiore integerrimo.

Hab. in Madagascaria *Forbes ! Bojer ! (h. s. sp. e Mus. Soc. Hort. Lond.)*

Caulis erectus, pedalis, ramosus, tetragonus, striatus, pilis articulatis sæpe glandulosis villosus. Folia petiolata, elliptico-oblonga, serrata, basi angustata, pilis caulinis conformibus hirsuta, subtus glandulosa, floralia 2 vel 4 sub capitulo caulinis conformia involucrancia, in capitulo membranacea lato-ovata sinuata flores subæquantia. Bracteæ minutissimæ. Capitula globosa, terminalia vel in dichotomia ramorum superiorum subsessilia, verticillastris 6-floris dense imbricatis. Calyx subscariosus; labium supremum subnervè, integerrimum, convexum, subglabrum; inferius integerrimum, inflexum, 4-nervium, apice penicillatum. Corolla vix exserta. Stamina labium inferius æquantia. Styli lobus inferior superiorem basi involvens.

V. MOSCHOSMA.

Ocymi Sp. *Linn. et Auct.*

Lumnitzera. *Jacq. Fil. Ecl. vol. 2.* non Willd.*

Moschosma. *Reichb. Consp. Reg. Veg. 171.*

Calyx ovatus, quinquedentatus, dente supremo majore marginibus non decurrentibus, inferioribus subæqualibus, post anthesin subdeclinatus, fauce intus nuda. Corolla tubo incluso, limbo subbilabiato, labio superiore breviter quadrifido, inferiore integerrimo subplano, lobis omnibus fere æqualibus. Stamina 4, declinata. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice clavato-capitatus, brevissime bifidus. Stigmata minuta. Achenia ovato-compressa, lævia. — Herbæ. Verticillastri pauciflori, secundi, laxè racemosi, racemis axillaribus subpaniculatis.

A genus common to the tropical parts of Asia and Africa. The corolla is the same as in the preceding genera, from which it differs in habit, in the calyx, and in the clavate style. The flowers are very minute in the three known species.

1. *M. POLYSTACHYUM* (Benth. in Wall. Pl. As. Rar. 2. 13), caule acute tetragono angulis lævibus vel vix asperis, verticillastris 6-10-floris laxis approximatis.

Ocymum tenuiflorum. *Burm. Fl. Ind. 129. non Linn.*

Ocymum polystachyon. *Linn. Mant. 567. Murr. Comm. Gott. Nov. 3. 71. t. 3.*

Lumnitzera polystachya. *Jacq. l. c.*

Hab. in Indiæ orientalis humidis: in peninsula! ad Arcot *Klein!* in provincia Circariense *Roxburgh*, in ins. Mauritio *Commerson!* in regno Burmanico ad Rangoon et Prome, et in provincia Tavoy *Wallich!* in Java juxta Bataviam *Blume*, in ins. Timor *Herb. Mus. Par.!* (*h. s. sp. et v. v. c.*)

Herba annua, gracilis, 1-2-pedalis, ramosa, ramis glabris vel pilis brevibus raris hispidula. Folia longe petiolata, ovata, acutiuscula, crenata, basi rotundata vel cuneata, glabra vel supra tenuissime pubescentia, subtus pallidiora. Racemi numerosi, graciles, 2-4-pollicares. Verticillastri sæpius sexflori. Calyces hispiduli, vix bilabiati, dente supremo ovato obtusiusculo, lateralibus ovatis acuminatis, infimis setaceis. Corolla minuta, pallide purpurascens.

2. *M. DIMIDIATUM*, caule acute tetragono angulis lævibus, racemis elongatis, verticillastris sub-10-floris glomeratis remotiusculis.

* Not having succeeded in seeing the second volume of Jacquin's *Eclogæ*, I have been unable myself to verify the exactness of this reference.

Ocymum dimidiatum. Schum. ! *Pl. Guin. in Act. Acad. Hafn.* 1829. 4. 41.

Hab. in Africa tropica: in Congo et in Guinea *Thonning* ! (v. s. sp. in herb. *Vahl et Hornemann.*)

M. polystachyo valde affine, differt foliis majoribus, racemis longioribus 8-10-pollicaribus, floribus minoribus, verticillastris sæpius 10-floris distantibus.

3. *M. OCYMOIDES* (Benth. in Wall. Pl. As. Rar. 2. 13), caule tetragono angulis asperis, verticillastris 6-floris laxis.

Lumnitzera ocymoides. Jacq. l. c.

Ocymum polycladon. Link Enum. 2. 119.

Hab. in India orientali: in provincia Silhet *Wallich* ! (v. s. sp. in Mus. Angl. Ind.)

Habitus *M. polystachyi*, sed folia acutius serrata, supra hispidula, subtus canescentia; calyces paullo majores glabriusculi, fructiferi aucti patentes distinctius bilabiati, labio superiore tridentato dentibus ovatis medio latiore, inferiore bidentato dentibus lanceolatis acutis.

Species quoad genus dubia.

LUMNITZERA CÆSIA (Spr. Syst. Cur. Post. 223).

Hab.

"L. ramis glabriusculis teretibus, foliis ovatis dentato-crenatis, pedunculis subverticillatis basi bracteatis."—*Spreng. l. c.*

Species pessime descripta, verosimiliter non nova, et ideo vix retinenda.

Species e genere excludendæ.

L. CAPITATA. Spr. = *Acrocephalus capitatus*.

L. CARNOSA. Spr. = *Ocymum carnosum* ?

L. DENSIFLORA. Spr. = *Plectranthus rugosus* ?

L. FASTIGIATA. Spr. = *Salvia plebeia*.

L. MOSCHATA. Spr. = *Plectranthus moschatus*.

L. PROSTRATA. Spr. = *Geniosporum prostratum*.

L. RUBICUNDA. Spr. = *Orthosiphon rubicundus*.

L. SALVIOIDES. Spr. = *Plectranthus Heynei*.

L. TENUIFLORA. Spr. = *Ocymum sanctum*.

L. VIRGATA. Spr. = *Orthosiphon virgatus*.

VI. ORTHOSIPHON.

Orthosiphon. Benth. in Bot. Reg. vol. 15. ad calc. no. 1300.

Calyx ovato-tubulosus, 5-dentatus, dentis superioris ovato-membranacei marginibus decurrentibus alatus, post anthesin deflexus. Corolla tubo exserto recto vel incurvo nec gibboso nec defracto, fauce æquali vel rarius inflata, bilabiata, labio superiore 3-4-fido, inferiore integerrimo concavo. Stamina 4, declinata. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice clavato-capitatus, subinteger vel breviter emarginatus, stigmatibus in emarginatura subconfluentibus, nunc minutis nunc incrassato-capitatis. Achenia minutissime punctulato-rugosa.—Herbæ perennes, suffruti-

cesve. Racemi simplices, sæpius elongati, rarissime ovato-spiciformes. Verticillastri sexflori, distantes, laxi. Folia floralia bracteæformia, ovata, acuminata, reflexa, pedicellis sæpius breviora. Pedicelli fructiferi recurvi.

With the exception of one from South America, the species are all East Indian. The chief character of the genus consists in the lengthened tube of the corolla and the capitate apex of the style.

CONSPECTUS SPECIERUM.

Genitalia corolla breviora.

Corolla glabra, tubo subrecto.

Folia basi angustata.

Folia oblongo-ovata

1. *O. RUBICUNDUS*.

Folia oblongo-lanceolata

2. *O. VIRGATUS*.

Folia basi rotundata vel cordata.

Petioli pilosissimi

3. *O. VISCOSUS*.

Petioli glabriusculi.

Glaber : corolla calyce duplo longior

5. *O. GLABRATUS*.

Tomentosus : corolla calyce subtriplo

longior

4. *O. TOMENTOSUS*.

Corolla pubescens, tubo incurvo

6. *O. INCURVUS*.

Genitalia exserta.

Corollæ faux inflata. Genitalia breviter exserta

7. *O. SCAPIGER*.

Corollæ faux æqualis. Genitalia longissime exserta.

Flores laxè racemosi

8. *O. STAMINEUS*.

Flores dense spicati

9. *O. CAPITATUS*.

1. *O. RUBICUNDUS* (Benth. in Wall. Pl. As. Rar. 2. 14), caulibus cæspitosis basi foliosis ramosis, foliis oblongo-ovatis grosse dentatis basi angustatis, infimis petiolatis, superioribus sessilibus, corollæ tubo recto, fauce subæquali calyce duplo longiore, staminibus corollam æquantibus.

Plectranthes rubicunda. Don! *Prod. Fl. Nep.* 116.

Lumnitzera rubicunda. Spr. *Syst. Cur. Post.* 223.

α *mollissimus*, foliis utrinque mollissime villosis.

Plectranthus mollissimus. Wall. MSS.

β *canescens*, foliis breviter tomentoso-pubescentibus.

Plectranthus tuberosus. Roxb. MSS.

Ocymum tuberosum. Id. in *Herb. Banks*.

γ *rigidus*, foliis glabriusculis vel brevissime tomentosis.

Ocymum rigidum. Hamilt. MSS.

Hab. in India orientali : α , in Napalia et Kamoun Wallich! β , in montibus Orixæ Roxburgh, ad Segain regno Burmanico Wallich! γ , ad Nathpur et Monghyr Hamilton! (*h. s. sp. e Mus. Angl. Ind.*)

Radix crassa, perennis, fibris lateralibus sæpe tuberosis. Caules cum racemo pedales vel ultra, adscendentes, tetragoni, pilis articulatis viscosis plus minusve villosi, vel in var. γ fere glabri, basi foliosi ramosi, apice subnudi. Folia 2-3-pollicaria, crassiuscula, subtus pallida venosa minutissime glanduloso-punctata, floralia bracteæformia, minuta, ovata, acuminata. Racemus 6-9-pollicaris, verticillastris demum fere pollicem distantibus sexfloris. Calyces fructiferi pedicello longiores, oblongi, nutantes, parum incurvi, 3 lin. longi, dente supremo ovato supra concavo colorato. Corolla alba vel dilute purpurascens, lineas 6 vel in speciminibus Napalensibus fere 8 longa.

2. *O. VIRGATUS* (Benth. in Wall. Pl. As. Rar. 2. 14), caulibus basi cæspitosis, ramis erectis strictis, foliis oblongo-lanceolatis subdentatis

basi angustatis sessilibus vel infimis breviter petiolatis, corollis calyce duplo longioribus, tubo rectiusculo, fauce subæquali, staminibus corollam subæquantibus.

Plectranthes virgata. Don! *Prod. Fl. Nep.* 116.

Lumnitzera virgata. Spr. *Syst. Cur. Post.* 223.

Hab. in India orientali: ad Gorakpur et in montibus Morang Hamilton! (*h. s. sp. e Mus. Angl. Ind.*)

Ab *O. rubicundo* differt caulibus elatioribus, foliis angustioribus, racemo breviori paucifloro, verticillastris remotioribus, corollis minoribus tubo vix recto. Caules stricti, parum foliosi, uti tota planta glabriusculi. Calyces colorati.

3. *O. viscosus* (Benth. in Wall. Pl. As. Rar. 2. 14), caule basi fruticoso erecto ramoso, foliis petiolatis ovatis crenatis basi rotundatis vel cordatis viscoso-pubescentibus glanduloso-punctatis, petiolis axillisque pilosis, corollæ tubo recto calyce duplo longiore, fauce subæquali, staminibus corollam subæquantibus.

Hab. in India orientali: in montibus Dindygul Wight! (*h. s. sp. e Mus. Angl. Ind.*)

Inflorescentia *O. amæni*, sed habitu et foliorum forma diversus. Rami, petioli, et nervi foliorum pilis longis albidis viscosis sæpius hispidi.

4. *O. tomentosus* (Benth. in Wall. Pl. As. Rar. 2. 14), caule suffruticoso, ramis adscendentibus tomentoso-pubescentibus, foliis petiolatis ovatis basi cuneatis rotundatis vel subcordatis crassiusculis utrinque brevissime tomentoso-pubescentibus, petiolis axillisque nudis, racemis elongatis, corollis calyce triplo longioribus, tubo subincurvo, fauce subampliata, staminibus corolla brevioribus.

Ocymum triste. Roth. *Nov. Pl. Sp.* 270?*

Plectranthus tristis. Spr. *Syst.* 2. 690.

Hab. in India orientali: ad Palaveram prope Maderaspatam Wight! (*h. s. sp. e Mus. Angl. Ind.*)

Medius inter *O. viscosum* et *glabratum*, affinis etiam nonnunquam *Ocymo diffuso*, a quo corolla triplo quadruplove majore et stylo distinctissimus. Folia fere *O. glabrati*, sed majora, crassiora, et sæpius tomentosa, quamvis etiam in speciminibus nonnullis fere glabra, at semper densissime utrinque glanduloso-punctata. Racemi 6 poll. et ultra, laxiusculi. Verticillastri secundi, subsexflori. Calyces oblongi, fructiferi 2½ lin. longi. Corolla 9 lin. longa, fere *O. rubicundi*.†

* "Caulis erectus, quadrangulus, sulcatus, lineatus, pilis brevissimis scabriusculus, pallide ferrugineus. Folia ovata, obtusa, serrata, basi in petiolum attenuata et integerrima, supra strigis brevissimis scabra, subtus pallidiora tenui subferrugineo tomento vestita. Petioli subtomentosi, folio quintuplo saltem breviores. Racemus in caule ramisque terminalis, simplex, elongatus, palmaris et semipedalis, nudus. Verticilli 6-flori, floriferi approximati tamen distincti, fructiferi ad unciam fere a se invicem remoti. Pedunculi simplices uniflori, calyce duplo breviores, decurvi, ferruginei, scabri. Bractææ sub quovis verticillo 2 oppositæ, deflexæ, parvæ, ovatæ, acuminatæ, ciliatæ, subpetiolatæ. Flores nutantes, majusculi. Calyx nervosus, venoso-reticulatus, floriger præsertim ferrugineo-subtomentosus, ad nervos elevatos pilis brevissimis erectis scaber. Labium superius ovatum, acutum, integerrimum, ciliatum, inferius quadriaristatum, aristis ciliatis, 2 intermediis dimidio longioribus. Corolla sordide purpurea, extus subtomentosa, calyce duplo longior; labium superius subrotundum, trifidum, crenulatum, inferius ovatum, concavum, integrum; faux parum dilatata longitudine tubi; tubus cylindraceus, calyce dimidio brevior. Stamina vix exserta. Filamenta compressa, edentula, fauci corollæ inserta. Stylus filiformis. Stigma ovato-capitatum."—Roth. l. c.

† The description of the *O. tomentosus* which I gave in Dr. Wallich's Pl. As.

5. *O. GLABRATUS* (Benth. in Wall. Pl. As. Rar. 2. 14), caulibus adscendentibus ramosis glabris, foliis longe petiolatis ovatis acutis dentatis basi rotundatis vel subcordatis glabriusculis, corollis subincurvis, tubo calyce duplo longiore, fauce subæquali, staminibus corolla brevioribus.

Ocymum thymiflorum. Roth. Nov. Pl. Sp. 269?*

Plectranthus thymiflorus. Spr. Syst. 2. 690.

Hab. in India orientali: in peninsula! in ins. Ceylon König! in Arabia? Forsköl! Madagascaria Forbes! (h. s. sp. e Mus. Angl. Ind. et Soc. Hort. Lond.)

Herba perennis (?) basi ramosa, ramis adscendentibus vel erectis, glabris vel pilis minutissimis scabriusculis, sæpius purpurascentibus. Folia in speciminibus subpollicaria, vel interdum $1\frac{1}{2}$ -2-pollicaria, grosse et acute serrata, basi in petiolum parum decurrentia, supra sæpe purpurascentia, subtus pallida, juniora albida. Petioli inferiores folio longiores. Racemus 2-5-pollicaris, gracilis. Verticillastri semipollicem distantes. Flores duplo minores quam in *O. rubicundo*. Calyces atropurpurei, glabri, dente supremo ovato rotundato marginibus subrevolutis. Corolla parva, gracilis, glabra, atropurpurascens.

6. *O. INCURVUS* (Benth. in Wall. Pl. As. Rar. 2. 15), caule basi procumbente adscendente, foliis petiolatis oblongis crenatis utrinque angustatis tenuissime pubescentibus, verticillastris subsecundis, corollis villosis incurvis calyce triplo longioribus, fauce subæquali, staminibus corollam subæquantibus.

Hab. in India orientali: in montibus provinciæ Silhet contiguis Wallich! (h. s. sp. e Mus. Angl. Ind.)

Folia 2-3-pollicaria, inferiora longe petiolata, utrinque ad nervos petioli caulesque pubescentia. Racemi elongati, laxi. Calyces *O. rubicundi* vel *O. virgati*. Corollæ 9 lin. longæ tubo longe exserto sæpius valde incurvo, labiis patentibus ut in *Stachyde* vel *Betonica*.

7. *O. SCAPIGER* (Benth. in Wall. Pl. As. Rar. 2. 15), caulibus e basi crasso repente radicante erectis simplicibus scapiformibus, foliis ad basin caulis approximatis petiolatis ovato-oblongis grosse dentatis basi angustatis glabriusculis, racemis elongatis, corollis calyce subtriplo

Rar. was taken from stunted specimens, apparently gathered in a very dry soil, which were the only ones I had then seen. I am now enabled to ascertain its affinities more accurately, owing to the fine specimens communicated to me by Dr. Wight.

* "Caulis erectus, ultra pedalis, crassitie pennæ columbinæ, quadrangulus, sulcatus, lineatus, atropurpureus, laxè ramosus, inferne glaber, ad angulos vix scabriusculus, superne præsertim in racemo evidentius scaber. Rami erecti. Folia petiolata, ovata, grosse serrata, apice acuta, dente triangulari terminali, basi in petiolum parum attenuata et integerrima, glabra, ad costam venasque utrinque fusca pube prædita, 2 fere uncias longa, $1\frac{1}{2}$ lata, supra saturate viridia, subtus pallida fere albida. Petioli setæ porcinae crassitie, longitudine fere folii, angulosi, pubescentes, atropurpurei. Racemus terminalis, in caule ramisque erectus, simplex, laxis, digitatis et demum palmaris. Verticilli 4-5 lin. a se invicem distantes, inferiores 4-, superiores 6-flori. Pedunculi capillares, longitudine calycis, recurvi, uniflori. Bractææ sub quovis verticillo 2 minutæ, subrotundo-ovatae, minutæ, deflexæ, subpetiolatæ, ciliatæ. Flores atropurpurei, magnitudine fere *Thymi acinos*. Calyx nutans, scabriusculus, venoso-reticulatus, dorso præsertim purpureo-violaceus, bilabiatus. Labium superius subrotundum, brevi mucrone terminatum, cæterum integerrimum, inferius 4-aristatum, aristis 2 intermediis dimidio longioribus. Corolla calyce duplo longior, resupinata, bilabiata; tubus cylindræus, tenuis, longitudine calycis; faux oblonga, parum dilatata; labium superius subrotundo-ovatum, crenatum, adscendens, lateribus replicatis; inferius ovatum crenulatum. Stamina didynama, subexserta. Filamenta faucis corollæ inserta, edentula."—Roth. l. c.

longioribus, tubo recto, fauce amplissima, staminibus vix corolla longioribus.

Hab. in India orientali: in *Napalia Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Radix crassus, perennis, sublignosus. Caules cum racemo 1-2-pedales, glabriusculi. Folia fere omnia radicalia, limbo 3-5 pollices longo, 1½-2 poll. lato. Corolla cærulea, 7-8 lineas longa, fauce valde inflata campanulata; labium superius brevissimum, 4-dentatum, inferius elongatum, concavum. Genitalia breviter exserta.

8. *O. STAMINEUS* (Benth. in Wall. Pl. As. Rar. 2. 15), caule herbaceo erecto subramoso, foliis petiolatis ovatis acuminatis grosse dentatis basi cuneatis rotundatis vel supremis subcordatis, racemis laxis, corollis calyce triplo longioribus, tubo subrecto, labio superiore dilatato, genitalibus longissime exsertis.

Ocymum grandiflorum. *Blume Bijdr.* 835. non *L'Hér.*

Hab. in India orientali: in monte Taong Dong dicto Avæ et in Martabaniam *Wallich!* in montibus Korojivari *Hamilton!* in Java ad rivulos locis umbrosis *Blume!* in ins. Nicobar *Soc. Un. Fratr. in herb. Banks!* ad Offak in ins. Waigiou Moluccarum *Durville!* (*h. s. sp. e Mus. Angl. Ind.*)

Herba 2-3-pedalis, glabriuscula vel tenuissime tomentoso-pubescent. Inflorescentia et calyx omnino generis. Flores candidi, pulcherrimi, fere *Clerodendri*. Corolla 8-9-linearis, tubo gracili; labium superius dilatatum quadridentatum, inferius lineare canaliculatum. Genitalia capillacea, corolla fere triplo longiora. Habitu planta florifera *Clerodendrum*, fructifera *Ocymum* refert. — “Variat floribus albidis et lilacinis.” — *Blume.*

9. *O. CAPITATUS*, caule herbaceo erecto subramoso, foliis petiolatis ovatis acuminatis grosse dentatis basi angustatis, racemis spiciformibus abbreviatis densis paucifloris, corollis calyce plus duplo longioribus, genitalibus longissime exsertis.

Hab. in America tropica! (*v. s. sp. in herb. Lambertiano a Pavonio missum et vel in Nova Hispania a Moçino et Sessé vel in regno Quitensi a Tafalla lectum.*)

Caules adscendentes, pedales et ultra, pilis brevibus rufis bifariam pubescentes. Folia 2-4-pollicaria, acuta, irregulariter crenata, crenulis mucronatis, basi longe angustata, supra pilis raris brevibus hispidula, cæterum glabra. Verticillastri sex-flori, pauci, in spicam oblongam sesquipollicarem longissime pedunculatam approximati. Folia floralia inferiora, basi dilatata, subamplexicaulia, longissime acuminata, calyces æquantia, suprema comosa, dilatata, colorata, glabra, subciliata. Calyces subsessiles, semipollicares, glabri, tubulosi, dente supremo maximo dilatato venoso marginibus reflexis vix decurrentibus, 4 inferioribus basi connatis apice setaceis. Corolla fere *O. staminei*, sed labii superioris laciniae angustiores, labium inferius lineari-cuneatum, canaliculatum. Genitalia corolla plus duplo longiora.

VII. PLECTRANTHUS.

Ocymi sp. *Linn. et Auct.*

Plectranthus. *L'Hér. Stirp.* 1. 85.

Germanea. *Lam. Dict.* 2. 682.

Dentidia. *Lour. Fl. Cochinch.* 369.

Isodon. *Schrad.*

Calyx per anthesin campanulatus, 5-dentatus, dentibus æqualibus vel supremo majore, fructifer auctus, nunc declinatus, rectus, incurvus vel inflatus, dentibus æqualibus vel varie bilabiatis, nunc erectus,

tubulosus vel campanulatus, æqualiter 5-dentatus. Corolla tubo exserto basi supra gibbo vel calcarato dein declinato defracto vel subrecto, fauce æquali vel rarius inflata, bilabiata, labio superiore 3-4-fido, inferiore integro sæpius longiore concavo. Stamina 4, declinata, didynama, inferiora longiora. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus vel rarius subdistinctis divaricatis. Stylus apice breviter bifidus, lobis subæqualibus subulatis, stigmatibus minutis terminalibus. — Herbæ, suffrutices fruticesve. Verticillastri laxi, sæpius cymosi, multiflori, laxe racemosi vel paniculati.

This genus is almost entirely confined to the tropical or hotter parts of Asia, Africa, and Australia. A single species has been found in the Sandwich and South Sea Islands, and none in America.

CONSPECTUS SPECIERUM.

SECT. 1. GERMANEA. *Calyx fructifer declinatus, dente supremo ovato, 4 inferioribus angustioribus. Corolla calcarata.*

Species unica 1. *P. FRUTICOSUS*.

SECT 2. COLEOIDES. *Calyx fructifer declinatus, dente supremo ovato, 4 inferioribus angustioribus. Corolla ecalcarata.*

Corollæ labium inferius ovatum, superiori subæquale. (Species Madagascarienses.)

Folia dense tomentosa vel villosa.

Folia oblongo-elliptica basi cuneata 2. *P. VESTITUS*.

Folia ample cordato-ovata 4. *P. LONGIFLORUS*.

Folia breviter cano-pubescentia 3. *P. CANESCENS*.

Corollæ labium inferius elongatum porrectum, superius breviter tri-quadrifidum.

Calyx fructifer subinflatus membranaceus, dentibus inferioribus superiori longioribus vel infimis inter se connatis.

Folia floralia membranacea floribus longiora 5. *P. PUNCTATUS*.

Folia floralia herbacea vel decidua calyce fructifero breviora.

Folia basi rotundato-cuneata vel angustata. Flores racemosi.

Calycis dentes laterales supremum æquantes 6. *P. LESCHENAULTII*.

Calycis dentes laterales brevissimi truncati.

Folia opposita 7. *P. ROTUNDIFOLIUS*.

Folia ternatim verticillata 8. *P. TERNATUS*.

Folia basi truncata vel cordata. Flores paniculati.

Folia crassa villosissima 9. *P. FÆTIDUS*.

Folia glabriuscula vel cano-tomentosa.

Folia inciso-crenata. Dentes calycini inferiores ovati 12. *P. SUBINCISUS*.

Folia crenata. Dentes calycini inferiores lanceolati.

Molliter cano-tomentosus, foliorum sinubus clausis 10. *P. MOLLIS*.

Tenuiter cano-pubescent, folia basi cordata 11. *P. CORDIFOLIUS*.

Calyx fructifer incurvus striatus, dentibus inferioribus superiorem æquantibus liberis.

Verticillastri æquales.

- Caulis erectus.
 Folia rugosa, pubescentia vel villosa.
 Racemi densi, numerosi, paniculati 13. P. CONGESTUS.
 Racemi laxi, simplices vel subramosi.
 Herbæ foliis pubescentibus.
 Folia floralia ante anthesin imbricata. Corolla calyce 4-plo longior . . . 14. P. ZEYLANICUS.
 Folia floralia calyce breviora. Corolla calyce sub-3-plo longior . . . 15. P. AUSTRALIS.
 Suffrutex foliis villosis . . . 16. P. PARVIFLORUS.
 Folia glabra tenera . . . 20. P. FORSTERI.
 Caulis procumbens.
 Glaber 17. P. THUNBERGII.
 Villosus.
 Folia subrotunda . . . 18. P. MADAGASCARIENSIS.
 Folia ovata . . . 19. P. HIRTUS.
 Verticillastri secundi.
 Glaber 21. P. MICRANTHUS.
 Pubescens 22. P. MOSCHATUS.

SECT. 3. HETEROCYLIX. *Calyx fructifer declinatus bilabiatus, labiis subintegerrimis æqualibus. Corolla ecalcarata.*

- Species unica 23. P. PALISOTI.

SECT. 4. MELISSOIDES. *Calyx fructifer declinatus bilabiatus, labio superiore tridentato, inferiore bidentato. Corolla calcarata.*

- Species unica 24. P. MELISSOIDES.

SECT. 5. ISODON. *Calyx fructifer declinatus, dentibus omnibus æqualibus vel in labia 2, superius 3-dentatum, inferius 2-dentatum dejectis. Corolla ecalcarata.*

- Flores racemosi 25. P. LANCEOLATUS.
 Flores paniculati.
 Calyces fructiferi inflati, membranacei.
 Corollæ vix inflatæ. Stamina corollæ breviora 26. P. OBLONGIFOLIUS.
 Corollæ inflatæ. Stamina exserta . . . 27. P. SCROPHULARIOIDES.
 Calyces fructiferi incurvi, striati.
 Caules repentes, radicanes 36. P. REPENS.
 Caules erecti.
 Corollæ tubus basi declinatus, ad medium rectus.
 Corollæ inflatæ. Stamina exserta . . . 28. P. WIGHTII.
 Corollæ vix inflatæ. Stamina corollam æquantia v. vix longiora.
 Calyces fructiferi glabriusculi.
 Panicularamosissima. Folia rigida 29. P. STRIATUS.
 Panicula subsimplex. Folia herbacea 31. P. GERARDIANUS.
 Calyces fructiferi dense hispidi . . . 30. P. HISPIDUS.
 Corollæ tubus ad medium defractus.
 Folia crassa rugosa villosissima . . . 37. P. MONTANUS.
 Folia bullato-rugosa subtus candida . . 35. P. RUGOSUS.
 Folia vix rugosa, pubescentia.

Folia supra hispidula, subtus
pubescentia. Rami cano-
pubescentes.

Panicula laxa pauciflora. An-
theræ subbiloculares . 33. *P. MENTHOIDES*.

Panicula ramosissima multi-
flora . 32. *P. COETSA*.

Folia utrinque uti caules molliter
villosa . 34. *P. MACRÆI*.

SECT. 6. PYRAMIDIUM. *Calyx fructifer erectus tubulosus
æqualiter 5-dentatus. Corolla ecalcarata.*

Species unica . 38. *P. TERNIFOLIUS*.

SECT. 7. AMETHYSTOIDES. *Calyx fructifer campanulatus
erectus late 5-dentatus. Corolla ecalcarata.*

Species unica . 39. *P. AMETHYSTOIDES*.

40-44 Species quoad genus vel sectionem dubiæ, quarum 2 Indicæ,
1 Javanensis, 2 Sinenses.

SECTIO I. GERMANEA.

*Calyx fructifer declinatus, dente supremo ovato, 4 inferioribus
lanceolatis. Corolla basi supra calcarata. Frutex. Flores pani-
culati.*

1. *P. FRUTICOSUS* (L'Hér. Stirp. 1. 85. t. 41), caule fruticoso,
ramis pubescentibus, foliis petiolatis lato-ovatis subcordatis duplicato-
dentatis glabriusculis, floralibus bracteæformibus, racemis laxis pani-
culatis, verticillastris laxe sexfloris, calycibus campanulatis, dente su-
premo ovato acuto non decurrente, inferioribus lanceolato-subulatis,
infimis longioribus basi connatis, corollæ tubo basi supra calcarato.

Germanea urticifolia. *Lam. Dict.* 2. 682.

Hab. in Africa australi: ad Caput Bonæ Spei! in sylvis Hautniquas
copiose prope Kabeljaus rivier et alibi *Thunberg*. (*v. s. sp.*)

Frutex elegans, 3-4-pedalis, caule petiolis nervisque foliorum pilis adpressis
rufis pubescentibus vel villosis. Folia juniora supra pilis sparsis hispidula, demum
glabrata, 4-pollicaria et ultra, latitudine longitudinem æquantia, grosse et obtuse
duplicato-serrata, basi late cordata truncata vel ad petiolum breviter cuneata,
floralia subintegerrima, pedicellis multo breviora. Panicula parce ramosa. Pedi-
celli semipollicem longi. Corolla cærulea, elegans, calcare ad basin tubi extra calycem
exserto, tubo defracto calyce duplo longiore, labio superiore reflexo patente maximo
lato-rotundato breviter quadrifido, inferiore breviori concavo deflexo.

SECTIO II. COLEOIDES.

*Calyx fructifer declinatus, dente supremo ovato, inferioribus an-
gustioribus subæqualibus vel infimis longioribus basi subconnatis.
Corolla basi supra gibba nec calcarata, declinata vel defracta. Herbæ
fruticesve. Flores racemosi vel subpaniculati.*

2. *P. VESTITUS*, caule fruticoso, ramis dense rufo-villosis, foliis
petiolatis oblongo-ellipticis obtusiusculis crenulatis, basi cuneatis inte-

gerrimis rugosis supra fusco-pubescentibus subtus rufo-villosis, racemis simplicibus, verticillastris laxis sexfloris, calycis dente supremo ovato acuto non decurrente inferioribus subulatis, corollæ tubo æquali recto supra subgibbo.

Hab. in Madagascaria *Bojer!* (*v. s. sp. in herb. Hooker.*)

Rami vix tetragoni. Folia floralia parva, decidua. Verticillastri pauci laxè cymiformes, pedunculo communi utrinque 3 lin. longo, ramis brevissimis, pedicellis 3 lin. longis declinatis. Calyx *P. fruticosi*, pubescens. Corolla 5 lin. longa, labiis patentibus, superiore 4-fido, inferiore integro, lobis omnibus subæqualibus.

3. *P. CANESCENS*, ramis breviter cano-tomentosis, foliis petiolatis cordato-ovatis acutis crenatis supra rufo-tomentosis rugosulis subtus canescentibus tenuissime pubescentibus, supremis lanceolatis, floralibus bractæformibus, racemis simplicibus terminalibus folia superantibus, verticillastris laxis sexfloris, calycibus campanulatis, dente supremo ovato acuto non decurrente, inferioribus subulatis, infimis longioribus basi connatis, corollæ tubo inflato supra vix gibbo.

Hab. in Madagascaria *Bojer! Lyall!* (*v. s. c. in herb. Hook. et Mus. Par.*)

Caulis videtur herbaceus, sæpe inflato-nodosus. Folia subcoriacea, 2-3-pollicaria, basi sæpius cordata vel superiora rotundata, supra rugoso-aspera, subtus valde nervosa; floralia pedicellis vix breviora, reflexa, sessilia, spathulata, acuminata, subdentata, nec ciliata. Racemus 2-4-pollicaris, laxis. Pedicelli quatuor fere lineas longi. Corolla paullo brevior quam in *P. longifloro*, tubo inflato longe exserto extra calycem supra subgibbo et decurvo; labium superius reflexo-patens, lato-rotundatum, breviter quadrifidum; inferius paullo longius, concavum, cymbiforme. Stamina libera. Stylus apice subulato-bifidus.

4. *P. LONGIFLORUS*, caule subsimplici dense tomentoso, foliis longe petiolatis ample cordato-ovatis acutis grosse crenatis rugosiusculis utrinque pubescentibus, floralibus bractæformibus, racemo simplici foliis breviora, verticillastris laxis sexfloris approximatis, calycibus campanulatis, dente supremo lato-rotundato non decurrente, inferioribus subulatis, infimis longioribus, corollæ tubo recto supra gibbo.

Hab. in Madagascaria *Bojer!* (*v. s. sp. in herb. Hook. et Mus. Par.*)

Caulis herbaceus, adscendens. Folia basi late et profunde cordata, crenaturis sæpius serratis, superiora multo minora, floralia subsessilia, lato-ovata, integerrima, acuta, ciliata. Racemus 2-4-pollicaris. Verticillastri laxi, pedunculo communi subnullo, pedicellis folia floralia superantibus, 4 lin. longis, deflexis, glanduloso-pubescentibus. Calyx declinatus, pubescens. Corolla fere pollicaris, labiis patentibus, superiore lobis quatuor rotundatis, inferiore porrecto integro ovato. Stamina labio inferiore breviora. Styli lobi subulati.

5. *P. PUNCTATUS* (L'Hér. ! *Stirp.* 87. t. 42), caule herbaceo erecto crasso piloso-hispido, foliis breviter petiolatis ovatis obtusis crenatis basi rotundatis supra et subtus ad nervos hispidis, racemis simplicibus vel basi ramosis, verticillastris 6-10-floris supremis approximatis, calycibus hispidis declinatis, fructiferis membranaceo-inflatis, dente supremo ovato acuto non decurrente, inferioribus ei subæqualibus lanceolatis, corolla calyce duplo longiore, tubo basi infra gibbo ad medium defracto fauce æquali, labio superiore brevissimo, inferiore incurvo porrecto concavo.

Ocymum punctatum. *Linn. Mant.* 275.

Galeopsis maculosa. *Lam. Dict.* 2. 601.

Germanea maculosa. *Lam. Dict.* 2. 691.

Germanea punctata. *Poir. Dict.* 2. 763.

Hab. in Abyssinia *Bruce.* (*h. s. c.*)

Caulis crassus, 2-pedalis, sæpe punctatus. Pili caulis et foliorum articulati, sæpe glanduliferi. Folia sub-2-pollicaria, basi lato-rotundata vel subeordata, crassiuscula, rugosula, subtus glandulosa, superiora sessilia, floralia infima, caulinis subconformia at multo minora, verticillastos vix excedentia, superiora bracteæformia membranacea lato-ovata acuminata ciliata, suprema subcomosa. Racemi densi, hispidi, basi interrupti. Pedicelli calyce breviores. Corolla magnitudine *P. parviflori*, "dilutissime cærulea, disco labii superioris lineis purpureis notato, labio inferiore apicem versus intensius punctato."—(*L'Hér.*) Stamina labium inferius subæquantia ad faucem corollæ inserta. Achenia inflato-rotundata, subcompressa, pallida, læviuscula.

6. *P. LESCHENAULTII*, caule erecto subcarnoso glabriusculo, foliis longe petiolatis oblongis acuminatis obtuse serratis basi rotundato-cuneatis integerrimis glabris, floralibus deciduis, racemo simplici, verticillastris laxis multifloris, pedunculis utrinque subcarnosis irregulariter ramosis, calycis fructiferi dente supremo ovato breviter decurrente, inferioribus declinatis ovato-acuminatis, lateralibus supremum æquantibus, infimis longioribus basi cum lateralibus ultra medium invicem connatis, corollis calyce quadruplo longioribus, tubo elongato basi infra subgibbo ad medium defracto, fauce dilatata.

Hab. in Java *Leschenault*! (v. s. sp. in herb. Mus. Par.)

Species *P. cordifolio* et *inciso* affinis. Specimina deflorata habitu *Coleum macrostachyum* approximantur. Caulis herbaceus (?), glaber vel sub lente tenuissime pubescens, hinc inde subtuberculosus. Folia 4-6-pollicaria, flaccida, subtus minutissime glandulosa. Verticillastri æquales. Calyx florifer parvus campanulatus, fructifer valde acutus glaberrimus membranaceus, calycis *P. cordifolii* magnitudine. Corollæ labium superius integerrimum vel brevissime tridentatum, inferius ei subæquale declinatum oblongum concavum vel subplanum. Stamina libera, ad basin labii inferioris inserta. Stylus breviter bifidus.

7. *P. ROTUNDIFOLIUS* (Spr. Syst. 2. 690), caule basi procumbente radicante, ramis erectis crassis glabriusculis, foliis petiolatis ovato-rotundatis obtusiusculis crenatis basi rotundatis vel cuneatis in petiolum subdecurrentibus glaberrimis crassis nervosis, floralibus bracteæformibus, racemis simplicibus, verticillastris laxiusculis multifloris approximatis, calycis campanulati dente supremo lato-oblongo acuto vix decurrente, lateralibus truncatis, infimis lato-ovatis connatis brevissime acuminatis, corollis calyce subtriplo longioribus declinatis, tubo supra subgibbo, fauce vix inflata.

Kurka. *Rheede Hort. Mal.* 11. 49. t. 25?

Germanea rotundifolia. *Poir.!* *Dict.* 2. 763.

Coleus? rugosus. *Benth.!* in *Wall. Pl. As. Rar.* 2. 15.

Hab. in ins. Mauritio *Commerson*! et in Coromandelia? *Herb. Angl. Ind.* (h. s. sp. e Mus. Angl. Ind.)

Rami striati, sæpius glabri, vel rarius tenuiter pubescentes. Tota planta siccitate nigrescit, et glandulis minutis nigris obsessa est. Folia floralia minuta. Pedicelli breves. Calyx pubescens. Corollæ labium superius brevissime quadridentatum, inferius elongatum porrectum. Genitalia corolla breviora.

8. *P. TERNATUS* (Sims Bot. Mag. 51. t. 2460), caule erecto, ramis tenuiter cano-tomentosis, foliis longe petiolatis ovatis rotundatis acutis grosse crenatis basi longe angustatis subcarnosis supra tenuissime pubescentibus subtus canescentibus, floralibus bracteæformibus, racemis simplicibus, verticillastris laxiusculis multifloris approximatis, calyce campanulato, dente supremo latissimo non decurrente, inferioribus lato-ovatis acutis brevissimis, corollis calyce subtriplo longioribus declinatis, tubo supra subgibbo, fauce vix inflata.

Hab. in Madagascaria *Sims.* (v. s. c. in herb. *Hook.*)

Radix fibrosa, tubercula oblonga ferens. Caulis herbaceus. Habitus *P. rotundifolii*, a quo differt pubescentia tenui et foliis acutioribus et basi magis angustatis, sæpius an constanter (?) ternatim verticillatis, et calycis forma. Folia floralia glabra, integerrima, lanceolata, longe acuminata. Pedicelli breves. Calyx pubescens. Corolla glandulis nigris punctata, labio superiore brevissime quadridentato, inferiore elongato porrecto. Genitalia corolla breviora.

This plant (as well as the *P. rotundifolius*, of which it may possibly be a mere variety) is, according to Dr. Sims, cultivated in Madagascar and the Mauritius for its tubers. The *Ocymum tuberosum* of Roxburgh, mentioned by Dr. Sims as having a near affinity to this species, does not appear to me to have any further resemblance than the tuberous roots. It is my *Orthosiphon rubicundus* β.

9. *P. FÆTIDUS*, caule crasso villosa, foliis breviter petiolatis lato-ovatis crenatis basi truncatis cordatisve crassis rugosissimis villosissimis, floralibus deciduis, racemis densis subramosis, verticillastris multifloris approximatis, calycibus molliter villosis, dente supremo ovato-lanceolato acuto, inferioribus molliter setaceis, corollis calyce triplo longioribus, tubo exserto ad medium defracto, fauce vix inflata.

Ocymum fœtidum. *Herb. Banks. MSS.*

Hab. in Nova Hollandia tropica: ad Endeavour's River *Banks!* (v. s. sp. in herb. *Banks.*)

Tota planta rufescit. Caulis obtuse tetragonus, breviter pilosus. Folia fere rhomboidea vel deltoidea, utrinque densissime villosa. Racemi spiciformes, parum ramosi, 2-3-pollicares. Folia floralia lato-ovata, cordata, acuminata, supra glabra, subtus dense villosa, flores superantia, per anthesin decidua. Corollæ *P. cordifoliæ*.

10. *P. MOLLIS* (Spr. Syst. 2. 690), caule herbaceo erecto molliter cano-tomentoso basi inflato-carnoso, foliis longe petiolatis lato-ovatis grosse crenatis, basi profunde cordatis sinubus clausis, molliter cano-tomentosis, floralibus bractæformibus ovato-cuneatis, racemis laxis paniculatis, verticillastris paucifloris, calycibus nutantibus ovatis, dente supremo ovato acuminato non decurrente, inferioribus lanceolatis acuminatis, corollis calyce vix duplo longioribus, tubo basi infra subgibbo ad medium defracto, fauce dilatata.

Ocymum molle. *Ait! Hort. Kew. ed. 1. v. 2. 322.*

Hab. in India orientali *Comes de Bute!* (v. s. c.)

A *P. cordifolio* differt pubescentia molli canescente, foliis profundius cordatis sinubus clausis, racemis minus laxis, corollis minoribus. Corollæ violaceo-albidæ, labiis subæqualibus extus pubescentibus. An revera a *P. cordifolio* distinctus?

11. *P. CORDIFOLIUS* (Don Prod. Fl. Nap. 116), tenuiter pubescens, caule herbaceo erecto basi inflato-carnoso, foliis petiolatis lato-ovatis crenatis basi late cordatis, floralibus bractæformibus ovato-cuneatis, racemis laxis paniculatis, verticillastris secundis paucifloris, calycibus fructiferis nutantibus ovatis, dente supremo ovato acuminato non decurrente, inferioribus lanceolatis acuminatis, corollis calyce vix duplo longioribus, tubo basi infra subgibbo ad medium defracto, fauce dilatata.

Perim Tolassi. *Rheede Hort. Malab. 10. 167. t. 84.*

Ocymum mayporensis. *Roth. Nov. Pl. Sp. 271.*

P. maypurensis. *Spr. Syst. 2. 691.*

P. secundus. *Roxb. Hort. Beng. 45.*

P. incanus. *Link! Enum. 2. 120.*

P. divaricatus. Weinm. in *Syll. Pl. Soc. Ratisb.* 1. 68, sec. eund. in *Flora*, 1826, 1. 174.

Hab. in Indiæ orientalis montosis: in peninsula *Wight! Klein!* in *Napalia Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Radix tuberosa. Caulis basi crassus, carnosus, hinc inde inflatus, 2-3-pedalis, ramosus. Folia 2-3-pollicaria, subcarnosa, eglandulosa, glabriuscula vel pube brevi canescentia, floralia pedicello breviora. Racemi 4-6-pollicares, basi ramosi, in apice caulis laxè paniculati. Verticillastri 2-6-flori, pedunculo communi utrinque subnullo, pedicellis 4-8 lineas longis. Calyces per anthesin minuti, fructiferi 4 lineas longi, submembranacei, dentes 2 infimi lateralibus parum longiores, basi subconati. Corollæ labium superius adscendens brevissime quadridentatum, inferius longius latum concavum. Genitalia corolla breviora. Achenia inflato-globosa, pallida, lævia.

12. *P. SUBINCISUS* (Benth. in *Wall. Pl. As. Rar.* 2. 16), glabriusculus, caule herbaceo erecto vix carnosus, foliis petiolatis lato-ovatis inciso-dentatis basi cordatis, floralibus bractæformibus ovatis, racemis laxis subpaniculatis, verticillastris secundis, calycibus fructiferis subnutantibus ovatis, dente supremo ovato subdecurrente, inferioribus ovato-lanceolatis acuminatis, corollis calyce quadruplo longioribus, tubo basi infra subgibbo ad medium defracto, fauce subdilatata.

Hab. in India orientali: in peninsulæ umbrosis prope *Courtallum Klein!* et *Dindigul Wight!* in *Ceylona Macrae!* (*h. s. sp. e Mus. Angl. Ind.*)

P. cordifolio valde affinis. Differt statura minore, caule vix carnosus, foliis profunde crenatis subincisis, corollis longioribus angustioribus, calycis dente supremo latiore obtuso subdecurrente, inferioribus vix superiore longioribus.

13. *P. CONGESTUS* (Br. *Prod.* 506), caule cano-pubescente, foliis petiolatis ovatis obtusis crenatis basi cuneatis crassis rugosis tomentoso-villosis, floralibus minutis deciduis, racemis densis multifloris elongatis paniculatis, verticillastris multifloris approximatis, calycibus declinatis, fructiferis incurvis striatis pubescentibus, dente supremo ovato obtuso non decurrente, inferioribus lanceolatis acutis, corollis calyce subduplo longioribus.

Hab. in Noya Hollandia tropica *R. Brown.* (*v. s. sp. in herb. Banks.*)

Racemi spiciformes, elongati, densi, stricti. Verticillastri ultra 20-flori. Flores minuti, breviter pedicellati.

14. *P. ZEYLANICUS*, caule basi procumbente adscendente crasso pubescente, foliis petiolatis ovato-rotundatis crenatis pubescentibus, floralibus ovato-rotundatis obtusis ante anthesin bifariam imbricatis, racemis elongatis basi subramosis, verticillastris laxiusculis sub-10-floris, calycibus declinatis, labio supremo ovato acuto breviter decurrente, inferioribus lanceolatis acutis, corollis calyce quadruplo longioribus, tubo basi infra gibbo ad medium defracto, labio superiore patente, inferiore adscendente porrecto concavo.

Hab. in *Ceylona Macrae!* (*v. s. sp. in herb. Lindl.*)

Affinis *P. australi*, differt statura foliisque majoribus, foliis floralibus majoribus imbricatis, et corollæ forma et magnitudine. Calycem fructiferum non vidi.

15. *P. AUSTRALIS* (Br. ! *Prod.* 506), caule herbaceo erecto pubescente, foliis petiolatis lato-ovatis obtusis inciso-crenatis basi rotundatis rugosiusculis pubescentibus, floralibus ovato-rotundatis deciduis, racemis elongatis simplicibus, verticillastris laxiusculis sub-10-

floris, calycibus declinatis fructiferis incurvis striatis glabriusculis, dente supremo ovato acuminato vix decurrente, inferioribus lanceolatis setaceo-acuminatis, corollis calyce subtriplo longioribus, tubo basi subgibbo declinato, labio superiore patente, inferiore porrecto concavo.

P. australis. Lindl. ! *Bot. Reg.* 13. t. 1098.

Hab. in Nova Hollandia circa Portum Jackson *R. Brown!* (v. s. sp. in herb. *Delessert et h. s. c.*)

Caulis 2-3-pedalis, erectus, subramosus, crassus, pilis subreflexis pubescens. Folia crassa, rugosula, pollicem v. sesquipollicem longa, basi truncata v. subcordata, in petiolum subdecurrentia. Racemi semipedales. Verticillastri semipollicem distantes. Pedicelli inæquales, 1-2-lineares, calyce fructifero subbreiores. Corolla pallide purpurea.

16. *P. PARVIFLORUS* (Willd. ! *Hort. Berol.* 1. t. 65. non Br.), caule suffruticoso erecto ramoso tomentoso-villoso obtuse tetragono, foliis petiolatis lato-ovatis obtusis crenatis basi rotundatis vel cordatis rugosis utrinque villosis subtus albidis, floralibus ovato-rotundatis deciduis, racemis elongatis simplicibus, verticillastris laxiusculis sub-10-floris, calycibus declinatis, fructiferis incurvis striatis, dente supremo ovato acuminato vix decurrente, inferioribus lanceolatis setaceo-acuminatis, corollis calyce subtriplo longioribus, tubo basi subgibbo declinato.

P. parviflorus. Henkel *Adumbr. Plant.* ?

Germanea parviflora. Poir. *Dict.* 2. 764 ?*

P. graveolens. Br. ! *Prod.* 506.

Hab. in Nova Hollandia tropica et in montibus circa Portum Jackson *R. Brown!* in insulis Sandwich *Macrae!* (*h. s. sp. e Mus. Soc. Hort. Lond. et v. s. sp. in herb. Delessert comm. a cl. Brown*)

Valde affinis *P. australi*. Differt statura humiliore, caule suffruticoso, foliisque villosioribus, foliis floribusque minoribus.

The Sandwich Island plant, though grown in another hemisphere, does not appear to me at all different from the New Holland one. It occurs to me that I have also seen specimens from the Society Islands; but having no note to that effect, I cannot give the locality as certain.

17. *P. THUNBERGII*, caule procumbente glabro, foliis petiolatis rotundatis obtusissime crenatis carnosiss glaberrimis, racemis elongatis simplicibus, verticillastris laxè 4-6-floris, foliis floralibus acutis pedicello brevioribus, calycibus fructiferis declinatis striatis vix incurvis, dente supremo ovato acuto vix decurrente lateralibus lanceolatis setaceo-acuminatis, corollis calyce quintuplo longioribus, tubo decurvo, labio inferiore elongato incurvo.

Ocymum verticillatum. Linn. *Suppl.* 276.

Ocymum racemosum. Thunb. *Prod. Fl. Cap.* 96.

Hab. ad Caput Bonæ Spei *Thunberg!* *Masson!* (v. s. sp. in herb. *Kunth, Banks, &c.*)

P. madagascariensis affinis, differt caule foliisque glaberrimis carnosiss. Corolla ea *P. australis* longior et tenuior. Racemus gracilis. Pedicelli filiformes.

18. *P. MADAGASCARIENSIS*, caule herbaceo procumbente villoso, ramis adscendentibus, foliis petiolatis rotundatis obtusis inciso-crenatis villosissimis, racemis elongatis simplicibus, verticillastris laxiusculis sub-

* Poiret's description answers very well to this plant; but the habitat "Au Pérou" which he gives after Henkel (or *Hencke*, as the name is spelt by Poiret), is probably erroneous.

10-floris, foliis floralibus sessilibus membranaceis rotundato-cuneatis deciduis subtus villosis supra glabris, calycibus declinatis, fructiferis incurvis striatis, dente supremo ovato vix acuminato breviter decurrente, inferioribus lanceolatis setaceo-acuminatis, corollis calyce subtriplo longioribus declinatis, tubo basi subgibbo ad medium defracto.

Ocymum auricula. Forsk. ! MS. in herb. Banks.

Ocymum madagascariense. Pers. ! Syn. 2. 135.

P. villosus. Sieb. ! Fl. Maurit. exs. no. 152.

Hab. in Madagascaria Bojer ! in ins. Mauritio Sieber ! in "Oriente" (Arabia Felici ?) Forsköl ! (v. s. sp.)

Folia *P. Thunbergii*, sed planta ex omni parte pilis longis albidis villosissima. Corollæ *P. parvifloræ*.

19. *P. HIRTUS*, caule procumbente hispido, foliis petiolatis ovatis obtusis crenatis basi cuneatis rugosissimis hispidis, floralibus minutis, racemis elongatis subsimplicibus, verticillastris laxe 6-10-floris, calycibus declinatis, fructiferis incurvis striatis, dente supremo ovato acuto, inferioribus lanceolatis setaceo-acuminatis, corollis calyce quadruplo longioribus, tubo basi subgibbo ad medium defracto.

Ocymum hirtum. Herb. Banks MSS.

Hab. ad Caput Bonæ Spei Masson ! (v. s. sp. in herb. Banks.)

Affinis *P. madagascariensi*, sed differt præcipue foliis minoribus ovatis nec rotundis, rugosioribus et hispidioribus. Corollæ fere duplo majores abrupte defractæ, fauce inflata. Labium superius minute punctatum 4-dentatum, inferius dilatatum concavum. Genitalia exserta. Caules sæpe tumescentes, elongati, prostrati, ramis adscendentibus.

An a *P. madagascariensi* revera distincta species ?

20. *P. FORSTERI*, caule herbaceo erecto (?) glabriusculo, foliis petiolatis ovatis obtusiusculis basi cuneatis remote crenatis glabriusculis, floralibus minutissimis subnullis, racemis laxis simplicibus, verticillastris laxe 6-10-floris, calycibus glabris, fructiferis declinatis pedicello brevioribus, dente supremo ovato acuto vix decurrente, lateralibus lanceolatis acutis, infimis setaceis, corollis minutis calyce florifero vix duplo longioribus.

Hab. in Novis Hebridibus: in insula Tanna Forster ! (v. s. c. in herb. Banks.)

Planta tenera, gracilis, pedalis et ultra, fere glaber. Folia 6-18 lin. longa, petiolo glabro folii longitudinem æquante, glabra vel tenuissime pubescentia, tenera nec carnosa. Racemus gracilis, fere *P. Thunbergii*, sed longior. Corolla vix 2 lin. longa. Calyx fructifer fere *P. parviflori*, sed brevior.

21. *P. MICRANTHUS* (Spr. Syst. 2. 691).

P. parviflorus. Br. Prod. 506. non Willd.

Hab. in Nova Hollandia tropica R. Brown.

"*P. spicis secundis*, foliis rhombeo-lanceolatis crenatis calycibusque glabris glandulosis, corollæ labii superioris lacinia media integra, labio inferiore concaviusculo."—Br. l. c.

Affinis videtur *P. Forsteri*, sed "*spicis secundis*" discrepat.

22. *P. MOSCHATUS* (Br. Prod. 506).

Lumnitzera moschata. Spr. Syst. 2. 687.

Hab. in Nova Hollandia tropica R. Brown.

"*P. spicis secundis*, foliis rhombeo-lanceolatis crenatis calycibusque pubescentibus, corollæ labii superioris lacinia media emarginata, labio inferiore plano."—Br. l. c.

SECTIO III. HETEROCYLIX.

Calyx fructifer declinatus bilabiatus, labiis subintegerrimis subæqualibus. Corolla basi supra gibba nec calcarata defracta. Herba. Flores racemosi.

23. P. ? PALISOTI, caule herbaceo erecto pubescente, foliis ovatis obtusis crenatis basi rotundatis vel cordatis nervis utrinque pubescentibus, floralibus bracteæformibus, racemo simplici, verticillastris sexfloris remotis, calycibus fructiferis bilabiatis, labiis subintegris membranaceis subæqualibus, corollis calyce subduplo longioribus.

Ocymum monostachyum. *Pal. de Beauv. ! Fl. Ow. et Ben. 2. 60. t. 95. f. 1.*

Hab. in Africa tropica *Palisot de Beauvois ! (v. s. sp. in herb. Delessert.)*

Caulis cum racemo circiter pedalis. Folia floralia sessilia, ovato-lanceolata, acuta, reflexa, ciliata, colorata, pedicellis subbreviora. Racemus 3-4-pollicaris. Pedicelli pubescentes, calyce sublongiores. Calyx pubescens, dente supremo lato-ovato breviter decurrente labium superius formante, lateralibus minutissimis intra basin supremi, infimis in labium inferius obtusum brevissime biaristatum connatis. Corollæ fere P. *parviflori*, sed in speciminibus Palisotianis valde imperfectæ et nondum apertæ sunt. Achenia lævia.

The specimens of this plant from Palisot de Beauvois are so very bad that it is difficult to say whether this be really a *Plectranthus* or a *Coleus* nearly allied to *C. africanus*. It has the habit and inflorescence of the former genus ; but in some respects the calyx of the latter.

SECTIO IV. MELISSOIDES.

Calyx fructifer declinatus bilabiatus, labio superiore tridentato, inferiore bidentato. Corolla basi supra calcarata. Herba. Cymæ axillares paucifloræ.

24. P. MELISSOIDES, caule herbaceo angulis asperis, foliis petiolatis lato-ovatis basi cuneatis glabriusculis asperis, floralibus conformibus, verticillastris axillaribus laxis remotis, pedunculis utrinque trifidis, calycibus campanulatis glabris, labio superiore tridentato, inferiore bidentato, dentibus omnibus ovatis acutis, corollis defractis supra obtuse calcaratis.

Hab. in India orientali : in provincia Silhet *Wallich ! (h. s. sp. e Mus. Angl. Ind.)*

Caulis videtur procumbens vel adscendens, ramis elongatis acute tetragonis ; anguli pilis minutis reflexis scabri ; facies glabræ. Folia parva, ovato-rhomboidea, acuta, crenata, supra et subtus ad nervos pilis minutis scabra. Flores vix folia superantes. Pedunculi fructiferi 1-3 lin. longi, pedicelli duplo longiores. Calyx membranaceus, labium superius recurvo-patens supra concavum. Corollæ tubus calyce duplo longior, supra in calcar breve inflatus, ad faucem contractus ; labia fere ut in P. *fruticoso* subæqualia, superius patens breviter 4-dentatum, inferius ovatum acutum integerrimum deflexum. Stamina libera, labio inferiore paullo breviora. Stylus breviter subulato-bifidus. Achenia subglobosa, læviuscula.

SECTIO V. ISODON.

Isodon. Schrad.

Calyx fructifer declinatus, dentibus omnibus æqualibus vel in labia 2, superius tridentatum, inferius bidentatum dejectis. Corolla basi supra gibba nec calcarata, declinata vel defracta. Herbæ suffruticesve. Flores paniculati vel rarius racemosi.

25. *P. LANCEOLATUS* (Boj. MSS.), caule erecto tenuiter pubescente, foliis oblongo-lanceolatis rigidis pubescentibus basi in petiolum brevem angustatis, racemo simplici, verticillastris laxis multifloris, calycibus campanulatis æqualibus, fructiferis inflatis incurvis, ore contracto, dentibus æqualibus brevibus obtusis connixentibus, corollis calyce quintuplo longioribus, tubo basi infra subgibbo medio refracto.

Hab. in Madagascaria: in monte Antoungoun provinciæ Emir-nensis *Bojer!* (v. s. sp. in herb. Mus. Par.)

Caulis herbaceus? tetragonus. Folia obtusiuscula, irregulariter serrata, nervosa, utrinque dense glandulosa. Floralia parva, bracteæformia, basi dilatata, subulato-acuminata. Verticillastri laxi, pedunculo communi brevi, ramis elongatis, pedicellis brevissimis. Calyces floriferi parvi, declinati, glandulis rubris dense obsiti, fructiferi valde aucti. Corollæ tubus tenuis, fauce subæquali, labio superiore breviter 4-dentato, inferiore elongato porrecto concavo oblongo integerrimo. Filamenta usque ad faucem adnata, dein libera, labio inferiore breviora. Stylus subinteger. Achenia orbiculata, compressa, pallida, lævia.

26. *P. OBLONGIFOLIUS* (Wall. Pl. As. Rar. 2. 16), caule herbaceo adscendente ramoso glabro, foliis petiolatis oblongis dentatis utrinque angustatis supra hispidulis subtus glabris, floralibus bracteisque minutissimis subnullis, paniculis laxis ramosis multifloris, calycibus declinatis vix bilabiatis obtuse 5-dentatis per anthesin ovatis striatis, fructiferis lagenæformibus basi inflatis, ore contracto, corollis calyce triplo longioribus, staminibus corolla brevioribus.

Hab. in India orientali: in Napalia *Wallich!* (h. s. sp. e Mus. Angl. Ind.)

Caulis 3-4-pedalis, non carnosus, fere omnino glaber. Folia extra petiolum 4-6-poll. longa, 2-poll. lata, valde acuminata et basi longe attenuata, subtus glandulosa. Racemi secundi, paniculato-ramosi, cymæ laxæ pedunculo communi semipollicari, ramis gracilibus utrinque 3-4-floris. Calyx glaber, striatus, glandulis rubris obtectus, per anthesin minutus, fructifer basi valde inflatus submembranaceus nervosus 3 lineas longus. Corolla lineas 3 longa, tubo subinflato supra vix gibbo.

27. *P. SCROPHULARIOIDES* (Wall. Pl. As. Rar. 2. 16), caule herbaceo erecto ramoso subglabro, foliis longe petiolatis lato-ovatis crenatis basi rotundatis inæqualiter cordatis v. subcuneatis, floralibus bracteisque minutis, paniculis laxis, calycibus fructiferis declinatis profunde bilabiatis inflatis, labio superiore adscendente tridentato, inferiore concavo porrecto breviter bidentato, dentibus omnibus obtusis, corollis inflatis supra gibbis calyce subtriplo longioribus, staminibus exsertis.

Hab. in India orientali: ad ripas torrentium in Napalia et Kamaon *Wallich!* (h. s. sp. e Mus. Angl. Ind.)

Caulis 3-4-pedalis, ramosissimus, subcarnosus, angulis pubescentibus. Folia palmaria, subcarnosa, basi sæpius inæqualiter cordata, nunc rotundata v. attenuata, supra hispidula subtus glabra glandulosa, nervis elevatis carnosis pubescentibus. Petioli inferiorum semipedales v. ultra, superiorum breviores, nunc brevissimi.

Cymæ laxæ, pedunculo communi semipollicari, ramis 1-2-pollicaribus, pedicellis 4-5-linearibus racemos paniculiformes basi ramosos formantes. Calyces tenuissime pubescentes, submembranacei, nervosi. Corolla fere *Scrophulariæ* "ex albo-rosea, inodora, uti tota planta." (*Wall.*) Labium superius adscendens quadrifidum, lobis crenulatis, inferius angustius longius integrum. Filamenta libera, basi villosa.

28. *P. WIGHTII*, caule herbaceo erecto ramoso, foliis petiolatis lato-ovatis vel rotundatis acuminatis basi cordatis utrinque glabris vel pubescentibus, floralibus inferioribus conformibus, supremis bracteisque membranaceis rotundato-spathulatis pedunculo pedicellisque brevioribus, paniculis ramosissimis multifloris, calycibus fructiferis declinatis oblongis incurvis striatis glabris, ore oblique bilabiato, dentibus subæqualibus ovatis, corollis inflatis declinatis supra gibbis, tubo calyce dimidio longiore, staminibus exsertis.

α glaberrimus.

β totus pilis articulatis subviscosis pubescens.

Hab. in India orientali: in peninsulæ montosis circa Madura et Tenivelly *Wight*! in monte Kadrongon *Leschenault*! (*h. s. sp. comm. a cl. Wight.*)

Habitus *P. striati*. Corolla *P. scrophularioidis*, at multo minor. Folia sesquipollicaria vel vix bipollicaria, sæpius longe acuminata, margine obtuse serrata, rigida, nervosa. Panicula et calyces *P. striati*, at folia floralia et bracteæ majora latiora. Corollæ tubus latitudine longitudinem fere æquans, labio superiore adscendente quadrifido, inferiore angustiore longiore concavo. Filamenta libera, glabra. Stylus brevissime bifidus. Achenia oblonga, lævia.

29. *P. STRIATUS* (*Benth. in Wall. Pl. As. Rar. 2. 17*), caule herbaceo erecto ramoso subglabro, foliis subsessilibus ovatis acuminatis crenatis basi cuneatis rigidis supra hispidis subtus glabris, paniculis laxis ramosissimis multifloris, calycibus declinatis oblongis subbilabiatis, dentibus obtusis vix inæqualibus, fructiferis incurvis striatis glabris glandulosis, corollis tubo declinato basi supra subgibbo ad medium recto, staminibus breviter exsertis.

Hab. in India orientali: in montibus Silhet et Napaliæ *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis 2-3-pedalis, glaber v. tenuissime cano-pubescens. Folia 2 poll. longa, sesquipollicem lata, superiora et floralia gradatim minora, suprema uti bracteæ minuta. Racemi vix secundi, paniculato-ramosissimi, cymæ laxæ, pedunculo communi sæpe pollicari v. ultra, ramis gracilibus elongatis. Calyx fructifer non inflatus, sed valde incurvus, basi declinatus, ore adscendente profunde striatus. Corolla 3-linearis, calyce quadruplo longior; tubus elongatus tenuis, labium superius breve adscendens extus glandulosum, inferius ovatum concavum. Stamina breviter, stylus longe exsertus. Achenia ruguloso-punctata.

30. *P. HISPIDUS* (*Benth. in Wall. Pl. As. Rar. 2. 17*), caule herbaceo erecto ramoso pubescente, foliis subsessilibus ovatis acuminatis dentatis basi cuneatis rigidis supra hispidis subtus pubescentibus dense glandulosis, paniculis laxis ramosissimis multifloris, calycibus declinatis oblongis obtuse 5-dentatis, fructiferis bilabiatis vix incurvis hispidissimis, corollæ tubo declinato basi supra subgibbo ad medium recto.

Hab. in India orientali: in montibus Silhet *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Statura et habitus omnino *P. striati*, a quo differt pubescentia et præsertim calycibus basi subinflatis minus incurvis bilabiatis pilis articulatis densissime obtectis. Stamina vix exserta.

Aug. 1832.

31. *P. GERARDIANUS* (Benth. in Wall. Pl. As. Rar. 2. 17), caule herbaceo erecto subramoso subglabro, foliis ovatis acuminatis crenatis supra hispidulis subtus glabris parce glandulosis inferioribus petiolatis basi angustatis superioribus subsessilibus basi cordatis, floralibus pedunculo brevioribus supremis bracteisque minutis, racemis paniculæformibus vix ramosis, cymis laxis gracilibus multifloris, calycibus declinatis oblongis bilabiatis, dentibus obtusis, fructiferis incurvis striatis glabris vix glandulosis, corollæ tubo declinato basi supra subgibbo, ad medium recto.

Hyssopus lophanthoides. Don! *Prod. Fl. Nep.* 110.

Hab. in India orientali: in montibus Napaliæ et Kamaon *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *P. striato*, differt statura minore, foliis herbaceis majoribus, racemo subsimplici, rachi pubescente.

32. *P. COETSA* (Don! *Prod. Fl. Nep.* 117), caule herbaceo erecto ramoso cano-pubescente, foliis petiolatis ovatis utrinque angustatis medio crenatis supra hispidulis subtus pubescentibus, paniculis ramosissimis multifloris, calycibus declinatis oblongis bilabiatis, dentibus ovatis acutiusculis subæqualibus, fructiferis incurvis striatis cano-pubescentibus vix glandulosis, corollæ tubo basi supra gibbo ad medium defracto.

Scutellaria japonica. *Burm. ! Fl. Ind.* 130. *ex parte.**

Ocymum Coetsa. *Spr. Syst. Cur. Post.* 223.

Hab. in India orientali: in montibus Napaliæ, Kamaon, et ad Taong Dong regni Burmanici *Wallich!* in Japonia et Java? *Burmann!* (*h. s. sp. e Mus. Angl. Ind.*)

Caulis 2-3-pedalis. Folia sæpius bipollicaria, longe acuminata, rugosula, supra viridia, subtus sæpe canescentia minute glandulosa; floralia inferiora conformia, suprema minuta. Panicula ampla, multiflora, canescens. Racemi paniculæformes, secundi, ramosissimi, cymæ graciles, laxæ, multifloræ, pedunculo communi 3-4-lineari, ramisque filiformibus. Bracteæ minutissimæ, setaceæ. Corolla calyce triplo longior, cærulea, labiis profundis patentibus, superiore 4-dentato, inferiore integro concavo porrecto. Stamina corolla breviora. Stylus exsertus. Filamenta omnino libera, nec basi connata ut *Don l. c.*

33. *P. MENTHOIDES* (Benth. in Wall. Pl. As. Rar. 2. 17), caule herbaceo erecto ramoso cano-pubescente, foliis petiolatis ovatis utrinque angustatis grosse dentatis utrinque pubescentibus, paniculis laxis paucifloris, calycibus fructiferis declinatis oblongis incurvis (?) cano-pubescentibus, dentibus acutiusculis, supremo latiore, corollis basi supra subgibbis, tubo vix defracto, fauce inflata, antheris subbilocularibus.

Hab. in Indiæ orientalis peninsula australiore *Wight!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitu *P. Coetsæ* affinis, sed racemis parvis paucifloris, corollis vix defractis antherisque subbilocularibus distincta. Stamina corolla breviora.—Flores in specimenibus suppetentibus vix aperti.

34. *P. MACRÆI*, caule herbaceo ramoso rufo-villoso, foliis petiolatis subsessilibus ovatis acutis subdentatis basi rotundatis utrinque molliter pubescentibus, floralibus conformibus, paniculis ramosis multifloris,

* In Burmann's Herbarium the plants which are named *Scutellaria japonica* appear to be this *Plectranthus* and the *Melissa parviflora*.

calycibus declinatis oblongis subbilabiatis, dentibus subæqualibus ovatis, fructiferis incurvis striatis villosis, corollis calyce triplo longioribus, tubo basi supra gibbo ad medium defracto, antheris bilocularibus.

P. rugosus β tomentosus. *Benth. in Wall. Pl. As. Rar. 2. 17.*

Hab. in India orientali: in peninsulæ montibus Madurensibus *Wight!* in Ceylona *Macrae!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Tota planta pubescentia rufa molliter villosa. Habitus *P. Coetsæ*, sed humilior, caule basi procumbente. Folia mollia, nunc integerrima, nunc utrinque irregulariter 2-3-dentata. Panicula minus ramosa et flores densiores quam in *P. Coetsæ*. Cymæ laxæ, axillares, oppositæ, pedunculo communi villoso 3-4 lineas longo, pedicellis gracilibus. Filamenta libera. Labium inferius corollæ elongatum, staminibus longius. Calyx fructifer major quam in *P. Coetsæ*.

35. *P. RUGOSUS* (Wall. Pl. As. Rar. 2. 17), caule fruticoso erecto ramis incanis, foliis petiolatis ovatis obtusis crenulatis basi rotundatis supra pubescentibus rugosis subtus cano-tomentosis reticulato-nervosis, paniculis ramosis multifloris, calycibus declinatis oblongis vix bilabiatis, dentibus lanceolatis acutis subæqualibus, fructiferis subincurvis striatis pubescentibus, corollæ tubo basi supra gibbo ad medium defracto.

O. densiflorum. *Roth. Nov. Pl. Sp. 275?**

Lumnitzera densiflora. *Spr. Syst. 2. 687.*

Isodon plectranthoides. *Schrader!*

Hab. in India orientali: ad Choor *Royle!* in Sirmore *Gerard!* (*h. s. sp. e Mus. Angl. Ind.*)

Frutex 4-6-pedalis, ramosissimus, cortice laxo griseo, ramis tetragonis dense pubescentibus. Folia vix uncialia, sæpius semiuncialia, exacte ovata, more *Salviæ officinalis* rugosula, subtus in speciminibus cultis pallida, in spontaneis candidissima, floralia inferiora conformia, superiora pedunculo breviora. Cymæ utrinque sub-5-floræ, inferiores folio breviores, pedunculo communi 3-4-lineari, ramis brevibus, pedicellis 3-4-linearibus. Bracteæ minutæ. Flores fere *P. Coetsæ*, at corolla minor, alba v. pallidissime cærulescens. Calyx fructifer paullo major. Stamina corolla breviora.

36. *P. REPENS* (Wall. Pl. As. Rar. 2. 17), caule basi repente radicante adscendente subsimplici hirsuto, foliis petiolatis ovato-rotundatis obtusis grosse crenatis basi rotundatis v. cordatis utrinque hirsutis, racemo laxo subsimplici, cymis pedunculatis, calycibus declinatis oblongis subincurvis striatis glabris, dentibus vix inæqualibus

* "O. foliis subrotundo-ovatis grosse et obtuse serratis basi in petiolum parum attenuatis supra scabriusculis subtus cinereo-tomentosis, panicula terminali ramosissima dense foliosa, bracteis linearibus minutis, calycibus subæqualibus quinquefidis.

"Caulis erectus, strictus, quadrangulus, cinereo-tomentosus, crassitie culmi secalini vel crassior, lateribus oppositis profundius canaliculatis. Rami erecto-patuli. Folia opposita, subrotundo-ovata, valde rugosa, grosse et obtuse serrata, basi in petiolum brevem tomentosum attenuata, supra saturate viridia, pilis brevibus scabriuscula, subtus cinereo-tomentosa. Panicula in caule ramisque terminalis, supra decomposita dense foliosa, foliis ad ramificationes primarias caulinis similibus at minoribus et superne magnitudine decrescentibus. Rami ramulæque filiformes, tenues. Pedunculi setacei, 4-6-flori, $1\frac{1}{2}$ -2 lin. longi. Pedicelli capillares, subcorymbosi, uniflori. Bracteæ ad pedunculos et pedicellos lineares, perexiguæ, pilosæ, deflexæ. Flores perexigui. Calyx pilosus, nervosus, quinquefidus, subæqualis, subbilabiatus, laciniis lineari-lanceolatis, acutis, 2 (3?) superioribus et 3 (2?) inferioribus, dente intermedio minore. Corolla exigua, calyce duplo longior, extus pilosa, purpurea, bilabiata. Stamina didynama. Filamenta purpurea, glabra, edentula. Antheræ reniformes, albæ cum puncto centrali atro."—*Roth. l. c.*

lanceolatis acutis, corollæ tubo declinato basi supra gibbo ad medium recto.

Hab. in India orientali: in montibus Napaliæ *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Planta humilis, semipedalis pedalisve, ex omni parte pilis longis articulatis vestita. Folia ad basin caulis approximata, infima longe petiolata, superiora subsessilia, floralia inferiora subconformia, superiora bractæque minuta. Racemus subnudus, simplex, vel basi ramosus. Cymæ inferiores distantes, laxæ, pedunculo communi semipollicari, ramis pedicellisque gracilibus elongatis glabris, superiores approximatae, breviores, densiores, subsecundæ. Flores magnitudine *P. striati*, at corolla supra gibbosior. Stamina corolla breviora.

37. *P.?* MONTANUS (Benth. in Wall. Pl. As. Rar. 2. 17), caule herbaceo erecto superne ramoso tomentoso-villoso, foliis breviter petiolatis ovatis obtusis crassis rugosis dense tomentosis, racemis ramosis pyramidato-paniculatis tomentosis, verticillastris subdistinctis densis multifloris, calycibus fructiferis declinatis incurvis tomentosis subæqualiter obtuse 5-dentatis.

Hab. in India orientali: in peninsula *Wight!* circa Nundydroog *Klein!* (*h. s. sp. e Mus. Angl. Ind.*)

Herba videtur pedalis. Caulis basi glaber, crassus. Folia inferiora in specimenibus desunt, superiora parva, opposita, dense rufo-tomentosa. Panicula fere *P. ternifoliæ*, sed minor. Calyx declinatus, incurvus, nec teres, erectus.—Corollam non vidi.

SECTIO VI. PYRAMIDIUM.

Calyx fructifer erectus, tubulosus, æqualiter 5-dentatus. Corolla basi supra gibba nec calcarata, defracta. Herba. Flores pyramidato-paniculati.

38. *P. TERNIFOLIUS* (Don! Prod. Fl. Nep. 117), tomentoso-villosus, caule erecto subramoso, foliis ternatim verticillatis subsessilibus lanceolato-oblongis acuminatis serratis basi cuneatis rugosis, paniculis ramosis densis pyramidatis multifloris, calycibus fructiferis cylindricis erectis striatis æqualiter 5-dentatis.

Ocymum ternifolium. Spr. Syst. Cur. Post. 224.

Hab. in India orientali: ad viarum margines in sylvis et in humidis montosis Napaliæ *Hamilton! Wallich!* Kamaon, Silhet, Oude, et regni Burmanici *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caules stricti, 2-3-pedales, hexangulares, undique dense rufo-villosi v. tomentosi. Folia 3-5 pollices longa, pollicem lata, supra elevato-rugosa, villosula, subtus venosa, pilis stellatis rufo- v. incano-tomentosa, floralia conformia minora, suprema minuta. Racemus rarius subsimplex, sæpius ramis numerosis strictis paniculam densam elongatam pyramidatam formantibus. Verticillastri densi, secundi, multiflori, cymis ternatim verticillatis v. sæpius una abortiente oppositis, pedunculo communi 2-lineari, ramis lin. 4-5 longis, pedicellis brevissimis. Bractæ lineares, minutæ. Calyces per anthesin campanulati, fructiferi elongati, tubulosi, stricti, densissime villosi, dentibus ovatis obtusis. Corolla extus villosissima, tubo supra gibbo ad medium defracto, labio superiore patente 4-dentato, inferiore ovato concavo. Stamina corollam æquantia.

SECTIO VII. AMETHYSTOIDES.

Calyx fructifer erectus, campanulatus, æqualiter 5-dentatus. Corolla basi supra gibba nec calcarata, defracta. Flores laxè paniculati.

39. P. AMETHYSTOIDES, caule erecto ramoso pubescente, foliis ovato-rotundatis crenatis basi longe angustatis integerrimis, floribus laxè paniculatis, calycibus fructiferis erectis campanulatis glaberrimis æqualiter 5-dentatis.

Hab. in China *Reeves!* (v. s. sp. in herb. *Lindley.*)

Caulis herbaceus (?) erectus, tetragonus, pilis brevibus obversis pubescens. Folia parva, distantia, petiolo cuneato-dilatato, tenuissime pubescentia, eglandulosa. Racemi elongati, paniculato-ramosi. Folia floralia inferiora caulinis conformia, suprema minuta sessilia. Verticillastri laxissimi, cymis utrinque elongatis, nunc omnibus regulariter dichotomis, inferioribus nunc ramis caulinis conformibus. Bracteæ ovatæ, infimæ foliaceæ, supremæ minutæ. Calyx *Amethysteæ cæruleæ* campanulato-subglobosus, dentibus brevibus lato-ovatis acutis. Corolla calyce quadruplo longior 2½-linearis; tubus basi supra gibbus, declinatus, elongatus, rectus; labium superius breve quadridentatum, inferius lato-rotundatum integerrimum. Stamina corollam æquantia.

Species quoad genus dubiæ.

40. P. SALVIOIDES.

Ocymum salvioides. Heyne in Roth. Nov. Pl. Sp. 272.

Lumnitzera salvioides. Spr. Syst. 2. 687.

Hab. in India orientali *Heyne.*

“O. foliis ovato-oblongis crenulatis basi in petiolum decurrentibus integerrimis utrinque pilosis ciliatis, caule inferne pilis reversis incano, superne cum calycibus pilis capitatis subviscoso, racemo terminali simplici, bracteis subrotundo-ovatis subpetiolatis, calycis labii inferioris (superioris?) tridentati dente intermedio minimo.

“Caulis quadrangulus, sulcatus, incanus, inferne pilis reversis brevibus tectus, superne intra racemum pilis capitatis subviscosus. Folia ovati-oblonga, obtusa, in ramulis lineari-lanceolata, acuta, ciliata, obtuse serrulata, basi attenuata, et in petiolum decurrentia, integerrima, supra viridia, subtus pallidiora, utrinque pilosa, 2-3 uncias longa, semiunciam latitudine vix superantia. Racemus terminalis, simplex, nudus, ante florescentiam imbricatus nutans, florescentiæ tempore elongatus verticillis dissitis sexfloris. Bracteæ subrotundo-ovatæ, breviter petiolatæ, deflexæ, pilosæ, brevi mucrone terminatæ, pedunculis duplo longiores. Pedunculi uniflori, calyce triplo breviores. Calyx nervosus, pilis capitatis obsessus, subbilabiatus, subæqualis, labium superius (inferius?) bifidum, inferius (superius?) tridentatum, dente intermedio minimo. Corolla parva, fusco-purpurea, calyce vix dimidio longior, resupinata, extus villosa, bilabiata. Tubus brevis, faux ventricosa, labium superius (inferius?) crenulatum, inferius (superius?) trilobum. Stamina didynama, vix extra faucem prominula.”—*Roth. l. c.*

Ex inflorescentia et corollæ forma videtur *Ocymis* affinis, sed calyce longe diversus. An *Moschomatis* vel *Perillæ* species?

41. P. (?) JAVANICUS.

Elsholtzia javanica. Blume Bijdr. 825.

Hab. in Java: in paludibus montanis *Blume.*

“E. paniculis virgatis foliosis, pedicellis subumbellatis, foliis ovato-oblongis grosse dentatis utrinque pubescentibus.

“Calyx tubulosus, quinquedentatus, dentibus subæqualibus. Corollæ labium inferius longius concavum subintegerrimum, superius fornicatum semiquadrifidum. Stamina didynama, declinata, labio inferiore inclusa. Antheræ globosæ, uniloculares, nudæ. Stigma semibifidum.”—*Blume l. c.*

An potius *Geniospori* species? Certe ab *Elsholtzia* valde diversus.

42. *P. NUDIFLORUS* (Willd. Spec. 3. 168).Germanea nudiflora. *Poir. Dict.* 2. 763.Hab. in China? *Willdenow*.

“*P. nectario* gibboso panicula racemosa nuda, foliis cordatis rugosis superioribus amplexicaulibus.

“Sub nomine *Ocimi chinensis* in hortis vidi. Caulis brevis vix semipedalis, quadrangularis, erectus, pubescens. Folia inferiora petiolata, 2-3-uncialia, cordata, acuminata, grosse dentata, rugosa, glabra, subtus ad venas pubescentia. Petioli unciales a basi folii decrescentes, superne alati. Folia superiora minora, cordata, dentata, rugosa, amplexicaulia. Panicula terminalis, pedalis et ultra, ex verticillis confertis composita qui e quatuor racemis secundis brevibus uncialibus formantur. Bracteæ ad quemlibet verticillum binæ, parvæ, cordatæ, integerrimæ, sessiles. Calyx bilabiatus, labium superius trilobum obtusum, labium inferius bipartitum, laciniis lineari-subulatis. Corolla parva, clausa, pubescens, tubo refracto superne gibboso.”—*Willd. l. c.*

An *Colei* species?43. *P. NANKINENSIS* (Spr. Syst. 2. 691).Dentidia nankinensis. *Lour. Fl. Cochinch.* 369.

Hab. in China: Nankini, inde Cantonem delata ob pulchritudinem studiose colitur *Loureiro*.

“Caulis herbaceus, annuus, 1-pedalis, erectus, duriusculus, tetragonus, rectus, purpureus, glaber, ramis brachiatis. Folia reniformia, concava, limbo reflexo fimbriato glabra, fusco-purpurea, opposita, petiolis longis. Flos albo-ruber, spicis prismaticis, quadragonis axillaribus. . . . Perianthium bilabiatum, 5-fidum, nitidum, pilosum, 5-nervium, erectum, laciniis 3 superioribus obtusis denticulatis, 2 inferioribus subulatis longioribus. Corolla ringens, pilosa, labio superiore 4-fido, laciniis subæqualibus rotundatis erectis, labio inferiore majore integerrimo incurvo reflexo. Filamenta didynamica, fauci insistentia, omnia corolla breviora. Antheræ bilobæ stantes, lobis ad basin divaricatis. Germen 4-fidum. Stylus brevis, æqualis staminibus. Stigma acutum, bifidum. . . . Semina 4, subrotunda. . . . Planta aspectu elegans, colore et odore *Melissæ Creticæ* similis, foliis, spicis, calyce, et corolla differens.”—*Lour. l. c.*

Verosimiliter ad *Anisochilum* vel ad *Æollanthum* referendus.

Species e genere excludendæ.

P. AMBOINENSIS. *Spr.* = *Coleus aromaticus*?*P. AROMATICUS*. *Roxb.* = *Coleus aromaticus*.*P. ASPER*. *Spr.* = *Coleus barbatus*.*P. BARBATUS*. *Andr.* = *Coleus barbatus*.*P. BARRELIERI*. *Spr.* = *Ocimum basilicum*.*P. BICOLOR*. *Blume.* = *Coleus bicolor*.*P. CANINUS*. *Roth.* = *Coleus spicatus*.*P. CARNOSUS*. *Sm.* = *Anisochilus carnosum*.*P. COLORATUS*. *Don.* = *Geniosporum strobiliferum*.*P. COMOSUS*. *Sims.* = *Coleus barbatus*.*P. CRASSIFOLIUS*. *Vahl.* = *Coleus zatarhendi*.*P. CRASSIFOLIUS*. *Hortul.* = *Coleus aromaticus*, et *Anisochilus carnosum*.*P. DUBIUS*. *Spr.* = *Anisochilus carnosum*.*P. FORSKÖLEI*. *Willd.* = *Coleus barbatus*.*P. GALEATUS*. *Vahl.* = *Coleus galeatus*.*P. INDICUS*. *Spr.* = *Ocimum indicum*.*P. INGRATUS*. *Blume.* = *Coleus ingratus*.*P. LACINIATUS*. *Blume.* = *Coleus laciniatus*.*P. MACROPHYLLUS*. *Blume.* = *Coleus macrophyllus*.*P. MONACHORUM*. *Spr.* = *Ocimum sanctum*.*P. MONADELPHUS*. *Roxb.* = *Coleus barbatus*.

- P. RUBICUNDUS. Don.* = *Orthosiphon rubicundus.*
P. SCUTELLARIOIDES. Blume. = *Coleus Blumei.*
P. SCUTELLARIOIDES. Br. = *Coleus scutellarioides.*
P. STROBILIFERUS. Roxb. = *Anisochilus carnosum.*
P. THYMIFLORUS. Spr. = *Orthosiphon glabratus.*
P. TRISTIS. Spr. = *Orthosiphon tomentosus.*
P. TUBEROSUS. Blume. = *Coleus tuberosus.*
P. VIRGATUS. Don. = *Orthosiphon virgatus.*
P. VISCOSUS. Spr. = *Ocymum viscosum.*

VIII. COLEUS.

- Ocymi sp. Linn. et Auct.*
Plectranthi sp. Br. et Auct.
Coleus. Lour. Fl. Cochinch.
Solenostemon. Schum. Pl. Guin.

Calyx ovato-campanulatus, fructifer erectus vel sæpius declinatus vel reflexus, fauce intus nuda vel hispida, quinquedentatus, dente supremo ovato-membranaceo marginibus rarius decurrentibus, inferioribus angustioribus, omnibus acutis vel lateralibus ovato-truncatis, 2 infinis sæpe inter se connatis. Corolla tubo exserto defracto, fauce inflata vel æquali, limbo bilabiato, labio superiore abbreviato obtuse 3-4-fido, inferiore integro elongato concavo, sæpius cymbiformi genitalia involvente. Stamina 4, declinata, inferiora longiora. Filamenta edentula basi in tubum stylum vaginantem connexa. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice subulatus, æqualiter bifidus, stigmatibus subterminalibus. Achenia subrotundo-compressa, lævia.—Herbæ annuæ vel basi perennantes, rarius suffrutices. Verticillastri sexflori vel sæpius multiflora, nunc densissimi, nunc laxi cymiformes pedunculo communi utriusque cymæ ramisve utrinque binis plus minusve elongatis. Folia floralia bractæformia, ante anthesin ad apicem racemorum plus minusve comosa, per anthesin decidua vel rarius subpersistencia, reflexa.

With the exception of one African species, all those of this genus which are known are from tropical Asia and the Indian Archipelago.

The monadelphous stamina, which distinguish these plants from all others of this tribe, and even of the order of *Labiata*, have been frequently observed; and although made use of by Loureiro to characterise the genus, have not, as already mentioned, been considered by Brown and others of sufficient importance to separate *Coleus* from *Plectranthus*; but as, among the number of species now known, they all, with the exception of *C. scutellarioides*, and two or three others only, are so distinct in habit as to be recognised without examination of the stamina; and as these two or three also differ from *Plectranthus* by the truncate lateral lobes of the calyx, and have always a tendency to the cymiform inflorescence, I have thought it advisable to adopt Loureiro's genus. At the same time it must be admitted that the under-mentioned sections are as different from one another in habit as that of *Solenostemon* is from *Coleoides*, a section of *Plectranthus*, and might almost be considered as so many distinct genera, were not the form of the corolla (always much influenced by the stamina) so nearly the same in all.

CONSPECTUS SPECIERUM.

SECT. 1. CALCEOLUS. *Verticillastri 6-10-flori. Calyx fructifer reflexus, fauce intus villosa.*

- Spica densa, verticillastri arcte approximatis . 1. C. SPICATUS.
 Racemus interruptus, verticillastri omnibus
 distantibus . 2. C. BARBATUS.
 3-4 Species non satis notæ, scil. 1 Arabica, 1 Indica.

SECT. 2. AROMARIA. *Verticillastri densi, subglobosi, multiflora. Calyx fructifer vix declinatus, fauce intus nuda.*

- Folia dense hispida, floralia calyce subbreviora . 5. C. AROMATICUS.
 Folia parce hispida, floralia lato-ovata, calyces
 superantia . 6. C. CRASSIFOLIUS.

SECT. 3. SOLENOSTEMON. *Verticillastri laxi, multiflora. Calyx fructifer declinatus, fauce intus nuda.*

§ 1. *Calycis dentes laterales abbreviati, truncati, ab infimis elongatis connatis liberi.*

- Pedicelli simplices uniflora, pedunculo communi
 ramisque subnullis.
 Folia obtusa . 7. C. BOJERI.
 Folia acuminata.
 Folia glabriuscula breviter acuminata . 8. C. SCUTELLARIOIDES.
 Folia glabriuscula longe acuminata
 subincisa . 9. C. ACUMINATUS.
 Folia villosa. Pedunculorum rami de-
 mum irregulariter elongati . 10. C. INGRATUS.
 Folia ampla subcarnosa . 11. C. GRANDIFOLIUS.
 Pedunculus communis subnullus, rami utrin-
 que 2 elongati.
 Folia rugosa villosa.
 Folia carnosa. Racemi secundi. Ca-
 lycis dentes laterales acuti. . 18. C. SECUNDIFLORUS.
 Racemi æquales. Calycis dentes la-
 terales obtusissimi . 14. C. PERSOONII.
 Folia pubescentia vel subglabra non rugosa.
 Folia obtusa.
 Calycis dentes infimi fere ad apicem
 connati. Folia ovata in pe-
 tiolum angustata . 12. C. AFRICANUS.
 Calycis dentes infimi superne liberi.
 Folia lato-ovata . 13. C. ATROPURPUREUS.
 Folia acuta . 15. C. MULTIFLORUS.
 16, 17, 19-21 Species non satis notæ Javanicæ.

§ 2. *Calycis dentes laterales acuti supremum subæquantes, infimi longiores basi cum lateralibus ultra medium se invicem connati.*

- Pedunculi ramique calyce fructifero breviores.
 Folia ovata acuminata. Racemus elongatus
 simplex . 22. C. MACROSTACHYS.
 Folia ovata vix acuminata. Racemus sub-
 simplex. Calyx fructifer valde inflatus . 23. C. OVATUS.
 Folia ampla latissime ovata. Racemus ra-
 mosus . 24. C. MALABARICUS.
 Pedunculorum rami utrinque 1-2 elongati.

- Folia basi longe angustata. Corollæ faux sub-
æqualis 25. *C. INFLATUS*.
Folia basi rotundata v. cuneata. Corollæ faux
amplissima 26. *C. MACRAEI*.
§ 3. *Calycis dentes 4 inferiores subæquales, basi liberi vel vix connati.*
Folia rigida glabra 27. *C. GLABRATUS*.
Folia crassa hispida.
Folia rugosa basi subcordata 28. *C. WIGHTII*.
Folia carnosæ basi cuneata 29. *C. PANICULATUS*.
30 Species Javanica quoad sectionem et etiam genus dubia.

SECTIO I. CALCEOLUS.

Verticillastri 6-10-flori. Calyx fructifer reflexus, intus fauce villosa.

1. *C. SPICATUS* (Benth. in Wall. Pl. As. Rar. 2. 15), caule basi procumbente, ramis adscendentibus patentim pilosis, foliis petiolatis obovatis basi angustatis carnosiss, floralibus membranaceis concavis flores superantibus demum deciduis, spicis simplicibus elongatis densis, verticillastri 6-10-floris approximatis, calycibus fructiferis deflexis hispidis, fauce intus villosa, dente supremo rotundato subdecurrente, inferioribus lanceolatis acutis subæqualibus, corollæ tubo defracto, labio inferiore stipitato cymbiformi.

Plectranthus caninus. Roth. Nov. Pl. Spec. 279.

Hab. in India orientali: in peninsulæ montibus Dindygul Wight!
(*h. s. sp. e Mus. Angl. Ind.*)

Caules basi ramosi, crassiusculi, obtuse tetragoni, ramis 1-1½-pedalibus. Folia 1-2-pollicaria, integerrima vel versus apicem parce crenata, utrinque pubescentia rara tenuissima subcanescentia. Spica 4-8-pollicaris et ultra, verticillastri omnibus densis et arcte approximatis. Folia floralia latissima, acuta, ciliata, cæterum glabra, juniora ad apicem spicæ comosa, dein per anthesin decidua. Corolla *C. barbati*, sed minor. Genitalia *C. barbati*. Achenia rotundata, compressa, nigra, lævissima.

2. *C. BARBATUS* (Benth. in Wall. Pl. As. Rar. 2. 15), caule basi fruticoso adscendente tomentoso-hispido, foliis petiolatis ovatis crenatis basi angustatis molliter tomentosis junioribus strigoso-hispidis, floralibus membranaceis lato-ovatis acuminatis in apice racemorum comosis per anthesin deciduis, racemis simplicibus, verticillastri sexfloris distantibus, calycibus fructiferis deflexis hispidis, fauce intus villosa, dente supremo ovato subdecurrente, inferioribus lanceolatis acutis subæqualibus, corollæ tubo defracto, labio inferiore stipitato maximo cymbiformi.

*Ocymum hadiense. Forsk. ? Fl. Ægypt. Arab. 109.**

Plectranthus Forskölæi. Willd. ! Sp. 3. 169. Vahl. ? Symb. 1. 44. Bot. Mag. 46. t. 2036.

Germanea Forskölæi. Poir Dict. 2. 764.

* “ *O. foliis ovatis obtusis crenatis villosis flexilibus, floribus refractis.*

“ Caules surgentes, villosi. Folia flexilia, ad basin pedunculi conferta, opposita, petiolo terete villosa, lamina ovata, obtuse crenata, utrinque villosa, subtus rugosa, punctis impressis. Pedunculi racemus verticillatus, hispidus, terminalis, spithamalis. Verticilli utrinque 4-flori, pedicellis patentibus villosis brevissimis. Calyx bilabiatus, multi-carinatus, carinis hispidis. Labium superius multo latius, planum, ovatum, ciliatum, inferius bifidum, laciniis lanceolatis. Corolla pallide cærulea, resupinata, tubus compressus, ad calycis apicem refractus. Labium quod deberet esse superius ac nunc inferius ovatum, cavum, magnum. Superius, naturæ ordine inferius, 4-lobum, Aug. 1832.

Plectranthus barbatus. *Andr. Bot. Rep. t. 594.*

Plectranthus comosus. *Bot. Mag. 49. t. 2318.*

Ocymum asperum. *Roth. Nov. Pl. Sp. 268.*

Plectranthus asper. *Spr. Syst. 2. 690.*

Plectranthus monadelphus. *Roxb. Hort. Beng. 45 (ex descr. MSS.)*

Hab. in India orientali: in montosis australibus peninsulæ, in Dindygul *Wight!* ad Nundydroog in Mysore *Heyne!* in Bangalore *Roxburgh;* in montosis Napaliæ et Kamaon *Wallich!* in Madagascaria *Vahl?* in Arabiæ Felicis montibus altioribus Hadiensibus alibique *Forsköl. (h. s. sp. e Mus. Angl. Ind.)*

Caules ramosi, 2-3-pedales, pilis articulatis rigidis asperi vel tomentoso-hispidi. Folia utrinque canescentia, crassiuscula, flaccida, sæpius tomentosa, nunc pilis rigidis adpressis oblecta, floralia in racemo juniore calyces superantia adpressa apice comosa, in vetustiore omnia decidua. Racemus strictus, semipedalis vel demum pedalis et longior. Calyces deflorati ut in *Ocymis* deflexi et ad axin arcte adpressi. Pedicelli breves, simplices, uniflori. Calyx pilis albidis dense oblectus, labium superius membranaceum, ovatum, acutum. Corolla albo-cærulea. Tubus basi subgibbus, extra calycem ad angulum rectum defractus, faux inflata. Labium superius breve, patens, brevissime et obtuse quadridentatum, inferius magnum, porrectum, compressum, cymbiforme, genitalia includens. Stylus apice breviter subulato-bifidus. Achenia lævissima.

3. C. HEYNEI.

Plectranthus monadelphus. *Heyne MSS.*

Ocymum monadelphum. *Roth. Nov. Pl. Sp. 267, an Br. App. to Salt. Abyss.?*

Hab. in India orientali *Heyne.*

“O. caule herbaceo adscendente simplici, foliis ovatis grosse serratis pubescentibus, racemo terminali simplici, bracteis ovato-lanceolatis reflexis, filamentis edentulis basi connatis.

“Caulis basi oblique adscendens, erectus, simplex, herbaceus, tetragonus, pubescens, palmaris et pedalis. Folia petiolata, remota, ovata, obtusa, grosse serrata, basi in petiolum parum attenuata, pubescentia, subtus pallidiora, venosa, media ultra sesquiunciam longa unciamque lata, inferiora et superiora minora. Racemus terminalis, simplex, laxus. Flores verticillati, verticillis distinctis semiunciam a se invicem remotis sexfloris. Bracteæ ad quemvis verticillum 2 ovato-lanceolatae, acuminatae, reflexae, planae, longitudine circiter pedicellorum, pubescentes. Pedicelli filiformes, pubescentes, vix ultra sesquilineam longi, simplices, uniflori. Calyx tubulosus, striatus, pedicello suo duplo longior, bilabiatus, pubescens. Labium superius subrotundo-ovatum, mucronatum, tenuissime crenulatum, integrum, ciliatum, venis elevatis elegantissime striatis reticulatum. Labium inferius quadrididum, laciniae setaceae, scabrae, 2 intermediae paullo longiores lateralibus. Corolla ringens. Tubus cylindraceus, calyce dimidio fere longior. Labium superius trifidum, inferius longius, ovatum, concavum, crenulatum, integrum. Stamina declinata, labio inferiore incumbentia. Filamenta e receptaculo prodeuntia, in tubum coherentia, supra medium distincta, edentula. Stylus apice semibifidus.”—*Roth. l. c.*

4. C. ZATARHENDI.

Ocymum a zatarhendi. *Forsk. Fl. Ægypt. Arab. 109.*

Plectranthus crassifolius. *Vahl. Symb. 1. 44.*

Germanea crassifolia. *Poir Dict. 2. 764.*

Hab. in Arabia Felici *Forsköl.*

“O. foliis carnosissimis rigidis late ovatis acutis crenatis villosis basi truncatis.

“Caules surgentes, sempervirentes, quadrangolo-teretes, setis mollibus farcti. Folia brachiata. Petiolus $\frac{1}{2}$ poll. patens, villosus, subtus teres, planus, supra cum canaliculo. Lamina carnosissima, late ovata, fere subrotunda, $1\frac{1}{2}$ poll. patens, villis

lobis 2 minoribus, lateralibus 2 multo majoribus divergentibus subrotundis, basi vitta alba. Stamina exteriora basi recurva, curvatura tubo adnata juxta geniculum, processu libero nullo. Nectarium glandula versus labium calycis quadrididum.

“Florum structura prorsus eadem cum *O. a zatarhendi*, tantum foliis flexilibus distat quum alterius sunt rigida et fragilia magisque carnosissima.”—*Forsk. l. c.*

mollibus reticulata, venis superne canis angustis, infra latis elatis dentato-crenata, obtuse basi truncata. Pedunculi terminales, spithamales, verticillati. Bractæ ad verticillos utrinque solitariae, membranaceæ, ovato-lanceolatae, deflexæ. Pedicelli seni utrinque in singulo verticillo, uniflori, semipollicares, superiores prius florent ideo longius excrescunt. Flores resupinati. Calyx labio inferiore (superiore?) lato cavo subrotundo, superiore (inferiore?) brevior quadripartito, laciniis lineari-lanceolatis. Corolla ringens. Tubus albicans, compressus, basi subtus gibbus, medio refractus ad angulum rectum, apice latior, supra planus, infra geniculum carinatus supra. Labium superius (inferius?) violaceum, cymbiforme, compressum, obtusum, integrum, inferius (superius?) erectum, album, obtusum, vix quadridentatum. Filamenta 4, didynama, inferiora labio longiora, superiora adhuc longiora, omnia a basi ad medium connata in tubum fissum circa pistillum. Stamina breviora, tubo annexa. Nectarium, glandula infra germina versus basin tubi crassa, ovalis, erecta, viridis. Germina 4, parva, globosa. Stylus filiformis ruber, longitudine staminum. Stigma duplex, acutum."—*Forsk. l. c.*

SECTIO II. AROMARIA.

Verticillastri densi, subglobosi, multiflori. Calyx fructifer vix declinatus, fauce intus nuda.

5. *C. AROMATICUS* (Benth. in Wall. Pl. As. Rar. 2. 15), caule basi fruticoso, ramis tomentoso-pubescentibus vel hispidis, foliis petiolatis lato-ovatis crenatis basi rotundatis cuneatisve crassissimis utrinque hispidis vel cano-villosis, floralibus calycem vix æquantibus, racemis simplicibus, verticillastris remotis globosis multifloris, calycibus suberectis tomentosis, fauce intus nuda, dente supremo ovato-oblongo membranaceo non decurrente, inferioribus brevioribus setaceis subæqualibus.

Plectranthus aromaticus. Roxb.! Hort. Beng. 45.

*C. amboinicus. Lour. Fl. Cochinch. 372.**

Marrubium album amboinicum. Rumph. Herb. Amb. 5. 295. t. 102. f. 3.?

Plectranthus amboinensis. Spr. Syst. 2. 690.?

Plectranthus crassifolius. Hortul.

C. aromaticus. Bot. Reg. 18. t. 1520.

Hab. in India orientali: ad Patna *Hamilton!* (an indigenus?) in hortis Indicis frequentissimus sed raro floret *Roxburgh MSS. (h. s. sp. e Mus. Angl. Ind.)*

Caules crassi, carnosio-vasculosi, basi sublignosi. Rami 1-1½-pedales, sæpius breviter hispidi. Folia fragrantissima, 1-2-pollicaria, in vivo crassissima, viridia, vasculosa, rugosa, siccitate albicantia, pilis brevibus dense obsessa, floralia parva, acuminata, per anthesin reflexa. Verticillastri 20-30-flori et ultra. Calyces breviter

* "C. foliis subcordatis crenatis carnosis spicis terminalibus longissimis.

"Radix perennis, repens. Caulis herbaceus, tripedalis, suberectus, crassus, teres, ad apicem subtetragonus, pilosus, pallidus. Folia subcordata, subrotunda, obtusa, crenata, carnosia, pilosa, albicantia, mollia, odorata, opposita, petiolis longis. Flos purpurascens, terminalis, spicis longis, verticillatis interruptis. Calyx bilabiatus, labio superiore (inferiore?) 4-fido, laciniis linearibus, inferiore (superiore?) lanceolato integerrimo incurvo longiore. — Hæc planta ejusque flores sat bene describuntur a Rumphio loco citato, spica vero non flores singuli melius representatur a Burmanno."—*Lour. l. c.*

From the above description it is scarcely to be doubted that this plant is referable either to the *C. aromaticus*, or to the *C. crassifolius*; and perhaps the whole are but one species, of which the *C. aromaticus* is the cultivated variety: but for the decision of this point I have not at present data sufficient. The figure of Burmann, referred to by Loureiro (*Marrubium odoratissimum*, &c. Thes. Zeyl. 153. t. 71. f. 1.), was drawn from the *Anisomeles ovata*.

pedicellati, parvi, albo-tomentosi, fructiferi vix aucti. Corollæ tubus calyce subduplo longior, ad medium defractus; faux inflata; labium superius breve quadridentatum, inferius tubo æquale, extus pubescens, parum dilatatum, cymbiforme. Genitalia breviter exserta. Achenia subrotunda, compressa, brunnea, lævissima, lucida.

In the cultivated specimens of this plant a multiplication of the parts of the flower may frequently be observed, shewing an approach to the normal number of 5 stamina, 5 styles, and 10 ovaria. In that case the filaments are scarcely connate, and the flower sterile.

6. *C. CRASSIFOLIUS* (Benth. in Wall. Pl. As. Rar. 2. 15), caule basi fruticoso, ramis erectis glabriusculis, foliis petiolatis lato-ovatis irregulariter dentatis basi rotundato-cuneatis crassissimis utrinque piloso hispidis, floralibus calyces superantibus, racemis simplicibus, verticillastris distinctis subremotis globosis multifloris, calycibus suberectis tomentosis, fauce intus nuda, dente supremo ovato elongato membranaceo non decurrente, inferioribus brevioribus setaceis subæqualibus.

Hab. in India orientali: in montibus Dindygul peninsulæ *Wight!* (*h. s. sp. e Mus. Angl. Ind.*)

C. aromatico affinis, et forsan mera varietas. Folia multo majora minus hirsuta, floralia majora sæpius rufo-villosa. Calyces majores. Corollæ minores. Genitalia et achenia *C. aromatici*.

SECTIO III. SOLENOSTEMON.

Verticillastri laxi, multiflori. Calyx fructifer declinatus, fauce intus nuda.

The species of this section appear to be numerous, and are difficult to distinguish by positive characters, although very different in appearance when brought together. They are chiefly natives of the islands of the Indian Archipelago; and unfortunately I have only been able to describe the greater number of them from isolated specimens observed at different times in different herbaria; which I regret the more, as they are plants which vary considerably in aspect in different stages of development. On this account I have found it necessary to omit some that appeared to be new; and among the remainder I cannot feel satisfied that I have not left many repetitions or blunders, which can only be cleared up by those who are better acquainted with the botany of Java, and other parts of the Archipelago.

§ 1. *Calycis dentes laterales abbreviati, truncati, ab infimis elongatis connatis liberi.*

7. *C. BOJERI*, caule humili pubescente, foliis petiolatis ovatis obtusis crenatis basi rotundatis vel subcordatis supra et subtus ad nervos hispidulis, floralibus minutis, racemis elongatis simplicibus, verticillastris laxis sub-10-floris, pedunculo communi ramisque brevissimis, calycibus pubescentibus declinatis, dente supremo ovato obtuso vix decurrente, lateralibus abbreviatis rotundatis, infimis elongatis acutis ultra medium connatis, corollæ fauce vix inflata.

Plectranthus maculatus. Bojer MSS.

Mitsa maculata. Chap. ex Bojer MSS.

Hab. in Madagascaria *Bojer! Lyall!* ad Betoni-mena provinciæ Emirnensis *Bojer!* (*v. s. sp. in herb. Hooker et Mus. Par.*)

Caulis herbaceus, subsimplex, rufo-pubescent vel villosus. Folia minora quam folia *C. scutellarioidis*, obtusa nec acuminata, bullato-subrugosa, purpureo-maculata, subtus glandulosa. Racemus elongatus. Verticillastri et flores *C. scutellarioidis*, sed pedicelli longiores, erectiores. Corolla minor, glabra, tubo calyce duplo longiore, labio inferiore lineari, tubo æquali. Stamina breviter exserta, ultra medium connata.

8. *C. SCUTELLARIOIDES* (Benth. in Wall. Pl. As. Rar. 2. 16), glabriuscula, caule basi fruticoso, foliis petiolatis ovatis breviter acuminatis dentatis basi rotundatis glabris vel vix tomentosis, floralibus demum deciduis verticillastro brevioribus, racemis elongatis gracilibus basi subramosis, verticillastris laxè multifloris, pedunculo communi subnullo, pedicellis ramos breves subæquantibus, calycibus fructiferis declinatis basi striatis, fauce intus nuda, dente supremo ovato acutiusculo vix decurrente, lateralibus ovatis obtusissimis, infimis longioribus acutis ultra medium connatis, corollæ fauce vix ampliata.

Majana aurea. *Rumph. Herb. Amb.* 5. 296. t. 102. f. 3. sec. *Burm.*, sed inflorescentia in icone deest et ideo dubia.

Ocymum scutellarioides. *Linn.!* *Sp.* 834. *Burm.!* *Fl. Ind.* 130. *Bot. Mag.* 35. t. 1446.

Plectranthus scutellarioides. *Br. Prod.* 506.

Hab. in Archipelago Indico: in ins. Amboyna et Bourou *Durville!* in Nova Hollandia tropica *Brown*, in ins. Mauritio *Commerson!* an indigenus? (*h. s. sp. e Mus. Angl. Ind.*)

Rami glabri vel tenuissime pubescentes, obtuse tetragoni, sulcati. Folia 1½-2-pollicaria, anguste ovata, subtus valde nervosa, sæpe subpurpurascentia, floralia lato-ovata, membranacea, acuminata. Racemi pedales et ultra. Verticillastri infimi pollicem, supremi semipollicem distantes, 10-15-flori. Calyces minuti, fructiferi aucti, glabriusculi. Corolla calyce florifero fere quintuplo longior, gracilis, basi infra gibbus, labio superiore pallido ovato breviter quadridentato, inferiore cæruleo duplo longiore concavo incurvo basi angustato. Achenia minuta, orbicularia, compressa, lævia.

9. *C. ACUMINATUS* (Benth. in Linnæa, 6. 81), caule superne piloso, foliis petiolatis ovatis longe acuminatis inciso-serratis basi rotundatis v. cuneatis utrinque puberulis, petiolis rufo-ciliatis, floralibus subcomosis deciduis, racemo simplici, verticillastris laxè multifloris, pedicello communi ramisque subnullis, calycibus fructiferis declinatis basi striatis, fauce intus nuda, dente supremo ovato obtuso vix decurrente, lateralibus truncatis, infimis elongatis acutis ultra medium connatis, corollæ fauce tenui.

Hab. in ins. Manilla *Chamisso!* (*h. s. sp. comm. a cl. Chamisso.*)

Caulis videtur herbaceus, erectus. Folia majora quam folia *C. scutellarioidis* et longius acuminata, floralia ovata, acuminata, membranacea, juniora subcomosa, per anthesin decidua. Calycis dentes infimi longiores quam in *C. scutellarioides*, corolla longior, tenuior, labio inferiore elongato declinato vix incurvo concavo basi valde attenuato. Cæterum *C. scutellarioides* valde affinis.

10. *C. INGRATUS*, pubescens, foliis petiolatis ovatis acuminatis serrato-crenatis basi cuneatis vel rotundatis utrinque pubescenti-villosis, floralibus deciduis, racemis simplicibus, verticillastris laxè multifloris, pedunculo communi subnullo, ramis abbreviatis, pedicellis elongatis, calycibus hispidis, dente supremo ovato non decurrente, lateralibus ovato-truncatis, infimis elongatis acutis ultra medium connatis, corollæ fauce subampliata.

Plectranthus ingratus. *Blume Bijdr.* 836. ?*

Hab. in Java *Blume!* in montosis provinciarum occidentalium *Blume.* (v. s. sp. in herb. *Kunth.*)

Planta tota purpurascit. Folia fere *C. scutellarioidis*. Petioli et axillæ pilosi. Verticillastri ultra pollicem distantes, irregulariter laxiflori. Calyx basi villosissimus, fructiferum non vidi. Corolla *C. scutellarioidis*.

11. *C. GRANDIFOLIUS*, caule pubescente, foliis petiolatis amplis lato-ovatis acuminatis grosse crenatis basi rotundatis vel subcordatis subcarnosis, floralibus coloratis ante anthesin comosis, racemis simplicibus elongatis, verticillastris laxe multifloris, pedunculo communi ramisque subnullis, pedicellis elongatis, calycibus hispidis, dente supremo ovato acuto non decurrente, lateralibus brevissimis truncatis, infimis elongatis acutis ultra medium connatis, corollæ fauce ampliata.

Hab. in ins. Timor *Guichenot!* (v. s. sp. in herb. *Kunth.* et *Mus. Par.*)

Folia tenuissime pubescentia, forma *C. malabarici*, sed subcarnosa ut in *C. paniculato*; floralia bractæformia, subpersistencia, suprema comosa. Racemus *C. scutellarioidis*, at paullo major et faux magis dilatata. Affinis quoque *C. secundifloro*, a quo differt tamen inflorescentia.

12. *C. AFRICANUS*, caule herbaceo erecto ramoso pubescente, foliis ovatis obtusis crenatis basi rotundatis, in petiolum decurrentibus glabriusculis, racemo elongato, verticillastris laxis, cymis utrinque multifloris, pedunculo communi subnullo, ramis elongatis, calycis fructiferi dente supremo ovato membranaceo acuto breviter decurrente, lateralibus minutis, inferioribus in labium membranaceum bidentatum coalitis.

Solenostemon ocymoides. *Schum. Pl. Guin. in Act. Acad. Hafn.* 4. 45.

Hab. in Africa æquinociali: in Guinea *Thonning!* ad Sierra Leone et in ins. St. Thomas *G. Don!* (h. s. sp. e *Mus. Soc. Hort. Lond.*)

Caulis crassiusculus, tenuiter pubescens. Folia 2-3 pollices longa, 2 poll. lata, obtuse et grosse serrata, vasculosa, rugosa, subtus punctata, petiolo pollicari alato. Racemi sæpius solitaires, rarius basi subramosi, elongati, fructiferi nunc sesquipedales, verticillastri semipollicem distantes, folia floralia bractæformia, parva, ovata, acuminata, ante anthesin verticillastra superantes, cymarum rami demum fere semipollicares, pedicelli fructiferi 2 lineas longi, rigidiusculi, regulariter distincti. Calyx declinatus, subglaber, nervosus, intus fauce nuda, labiis membranaceis tubo longioribus. Corolla albida? tubo infra gibbo medio defracto, labium superius breve 4-fidum, inferius elongatum, leviter concavum. Filamenta basi breviter connata.†

13. *C. ATROPURPUREUS* (*Benth. in Wall. Pl. As. Rar.* 2. 16), caule erecto tenuissime pubescente, foliis petiolatis lato-ovatis crenatis basi rotundatis tenuissime pubescentibus, floralibus ovatis minutis deciduis, racemis subsimplicibus, verticillastris quadrifariam cymæformibus, pedunculo communi utrinque subnullo, ramis elongatis, pedicellis brevissimis, calycibus pubescentibus, dente supremo ovato acutiusculo subdecurrente, lateralibus obtusissimis supremum æquantibus, infimis duplo longioribus acutis ultra medium connatis, corollæ fauce dilatata.

β *densiflorus*, foliis vix purpurascentibus, racemis subramosis, verticillastris magis approximatis.

* "P. calycis hirsuti labio inferiore trifido lacinia intermedia elongata semibifida, filamentis basi monadelphis, verticillis distinctis, pedicellis subramosis, foliis ovatis grosse crenatis basi cuneatis integerrimis utrinque puberulis.

"Folia utrinque atropurpureascentia."—*Blume l. c.*

† Confer *Plectranthum Palisoti* supra, p. 39.

Melissa lotoria. Rumph. Herb. Amb. 5. 292. t. 101.?

Hab. in Archipelago Indico: in ins. Penang Wallich! β , in ins. Manilla Chamisso! et Tanna Forster! in Uliassarensibus insulis Rumphius? (h. s. sp. e Mus. Angl. Ind. β comm. a cl. Chamisso.)

14. *C. PERSONII*, caule erecto tenuiter pubescente, foliis petiolatis ovatis obtusis crenatis basi truncatis vel subcordatis rugosis molliter villosis, floralibus deciduis, racemo simplici, verticillastris quadrifariam cymæformibus, pedunculo communi utrinque subnullo, ramis elongatis, pedicellis calyce brevioribus, calycibus canescentibus, dente supremo orbiculato concavo, lateralibus brevioribus obtusissimis, infimis elongatis lanceolato-setaceis incurvis ultra medium connatis, corollæ fauce subdilatata.

Ocymum paniculatum. Pers.! Syn. 2. 135.

Hab. in Madagascaria Commerson! (v. s. sp. in herb. Mus. Par.)

A *Coleis* hujus sectionis differt præcipue foliis rugosis villosis. Racemus canescit. Calyx fructifer nervosus, incurvus, dente supremo glabro. Corolla omnino ut in cæteris speciebus hujus sectionis. Stamina exserta, filamentis ultra medium connatis.

15. *C. MULTIFLORUS*, caule adscendente villosa pubescente, foliis longe petiolatis ovato-oblongis acutis crenato-serratis basi cuneatis vel angustatis molliter pubescentibus, floralibus deciduis, racemis elongatis simplicibus, verticillastris quadrifariam cymæformibus, pedunculo communi utrinque subnullo, ramis elongatis, pedicellis calyce brevioribus, calycibus glanduloso-pubescentibus, dente supremo orbiculato breviter decurrente, lateralibus obtusissimis duplo brevioribus, infimis lanceolatis elongatis ultra medium connatis, corollæ tubo tenui, fauce subinflata, labio inferiore maximo latissimo concavo.

Hab. in ins. Manilla Perrottet. (v. s. sp. in herb. Mus. Par.)

Habitu *C. acuminato* affinis, sed diversa foliis vix acuminatis, inflorescentia, calyce, et corolla. Caulis herbaceus videtur. Folia subtus minute glandulosa, petiolis rufo-villosis. Calyx fructifer incurvus, striatus, dente supremo subplano. Corollæ labium inferius in *Coleis* hujus sectionis maximum. Filamenta ad medium connata. Achenia parva, orbiculata, compressa, nigra, lævia, lucida.

16. *C. MACROPHYLLUS*.

Plectranthus macrophyllus. Blume Bijdr. 835.

Hab. in Java: in humidis sylvaticis montosis Blume.

"*P. calycis* hirsuti labio inferiore trifido lacinia intermedia longiore semibifida, filamentis basi monadelphis, verticillis distinctis, pedicellis ramosis, foliis subrotundo-ovatis acutis inæqualiter obtuse serratis basi vix attenuatis integerrimis utrinque puberulis.

"Accedit ad *P. ingratum*; folia infra purpurascentia."—Blume l. c.

17. *C. BICOLOR*.

Plectranthus bicolor. Blume Bijdr. 837.

Hab. in Java: ad pedem montis Saleck Blume.

"*P. calycis* hirsuti labio inferiore trifido lacinia intermedia longiore semibifida, filamentis basi monadelphis, verticillis distinctis, pedicellis ramoso-bifidis, foliis (dispariis) ovatis acuminatis crenatis basi rotundatis vel inæquali-attenuatis et integerrimis utrinque puberulis.

"Folia infra purpurascentia. Affinis *P. macrophylo*.

"Variet. foliis minoribus utrinque acuminatis rarius ad basin rotundatis, costis infra purpurascentibus."—Blume l. c.

18. *C. SECUNDIFLORUS*, tenuiter pubescens, foliis petiolatis ovatis

acuminatis grosse crenatis basi rotundatis vel cordatis rugosis subcar-nosis, floralibus deciduis, racemis elongatis simplicibus, verticillastris cymæformibus secundis, pedunculo communi utrinque subnullo, ramis elongatis, calycibus pendulis hispidis, dente supremo oblongo acuto non decurrente, lateralibus abbreviatis ovatis acutiusculis liberis, infimis elongatis acutis fere ad apicem connatis, corollæ fauce subdilatata.

Hab. in ins. Timor *Guichenot!* (v. s. sp. in herb. Mus. Par.)

Affinis *C. grandifolio*, a quo differt inflorescentia. Caulis erectus, ramosus, obtuse tetragonus, pubescens. Folia glabriuscula, ad nervos tenuiter pubescentia, floralia minutissima. Racemi multiflori, paniculæformes, secundi. Cymæ numerosæ, approximatae, laxæ, ramis pedunculorum in quoque verticillastro 2-4 valde elongatis, pedicellis calyce brevioribus, floribus in quoque ramo 10-15. Calycis fructiferi dens supremus maximus, membranaceus, glaber, glandulosus, laterales duplo breviores, infimi supremum æquantes. Corollæ tubus calyce florifero duplo longior, basi subtus gibbus. Labium superius breve, obtusum, quadrifidum, patens, inferius elongatum, concavum. Filamenta ultra medium monadelphæ.

19. *C. BLUMEI*.

Plectranthus scutellarioides. *Blume Bijdr.* 837. non *Br.*

Hab. in hortis Javanis colitur *Blume*.

"*P. calycis hirsuti labio inferiore trifido lacinia intermedia longiore semi-bifida, filamentis basi monadelphis, verticillis distinctis, pedicellis racemosis secundis, foliis ovatis acuminatis grosse obtuse serratis basi acutis et integerrimis utrinque puberulis.*

"*Folia supra maculis atropurpureis picta.*"—*Blume l. c.*

The expression "*pedicellis racemosis secundis*," although not very clear, cannot refer to the *Ocimum scutellarioides* of Linnæus. It is probably a new species allied to *C. secundiflorus*; but certainly differing in the form of the leaves.

20. *C. LACINIATUS*.

Plectranthus laciniatus. *Blume Bijdr.* 838.

Hab. in hortis Javanicis colitur *Blume*.

"*P. calycis hirsuti labio inferiore trifido lacinia intermedia semibifida longiore, filamentis basi monadelphis, verticillis distinctis, pedicellis subramosis secundis, foliis ovatis acuminatis laciniatis aut inciso-serratis basi acutis et integerrimis utrinque puberulis.*

"*An varietas P. scutellarioidis? Folia supra maculis purpurascentibus picta.*"—*Blume l. c.*

This species is also probably nearly allied to the *C. secundiflorus*.

21. *C. GALEATUS*.

Plectranthus galeatus. *Vahl Symb.* 1. 43. *Blume Bijdr.* 836.?

Germanea galeata. *Poir Dict.* 2. 763.

Hab. in Java *Vahl*: in humidis umbratis montanis *Blume*.

"*P. nectario gibboso, pedicellis ramosis, foliis cordato-ovatis acuminatis serratis.*

"*Caulis villosus, sulcatus. Folia petiolata, late ovata, villosa, præsertim in venis subtus. Pedunculus terminalis, pedicellis oppositis ramosis. Bractæ nullæ. Corolla pubescens, labio inferiore galeato. Accedit ad Ocimum scutellarioidem, cui folia ovato-lanceolata, flores minores, bractæ cordatæ, et pedunculi utrinque gemini.*"—*Vahl l. c.*

"*P. calycis hirsuti labio inferiore trifido lacinia intermedia longiore semi-bifida, filamentis basi monadelphis, verticillis distinctis, pedicellis ramosis, foliis ovatis acuminatis basi rotundatis subcordatisve exserte acute serratis utrinque puberulis.*

"*Affinis P. macrophylo et P. ingrato.*"—*Blume Bijdr.* 856.

If the above descriptions both refer to the same plant, it must be a distinct species from any I am acquainted with; for *Blume's* account of the calyx places

it in one of the first two divisions of the section *Solenostemon*; in neither of which have I seen the inflorescence described by Vahl, which is that of the third section.

22. *C. MACROSTACHYS*, caule pubescente, foliis petiolatis ovatis acuminatis crenato-serratis basi rotundatis supra et subtus ad nervos hispidulis, floralibus deciduis, racemis elongatis subsimplicibus, verticillastris remotis laxis, pedunculo communi utrinque ramis pedicellisque calyce fructifero brevioribus, calycibus glabris, fructiferis membranaceis, intus fauce nuda, dente supremo ovato acuto marginibus revolutis, inferioribus lanceolatis acutis, 2 lateralibus supremum æquantibus, 2 infimis longioribus basi cum lateralibus ultra medium invicem connatis, corollæ tubo tenui, fauce dilatata, labio inferiore elongato lato concavo.

Hab. in Java *Commerson*! (*v. s. sp. in herb. Mus. Par.*)

Caulis herbaceus, erectus, ramosus, purpurascens. Folia subtus minute glandulosa, floralia bractæformia, lato-ovata, concava, membranacea, ciliata. Verticillastri 10-15-flori. Folia et inflorescentia fere *C. ingrati*. Calyx et corolla *C. malabarici*.

23. *C. OVATUS*, caule glabriusculo superne viscoso-pubescente, foliis petiolatis ovatis vix acuminatis grosse crenatis basi rotundatis vel cordatis supra hispidulis subtus glabris, floralibus deciduis, racemis subramosis, verticillastris laxis, pedunculo communi ramisque subnullis, calycibus glabris membranaceis, fructiferis inflatis, dente supremo ovato marginibus subrevolutis, inferioribus acutis, 2 infimis basi cum lateralibus ultra medium se invicem connatis, corollæ tubo tenui, fauce dilatata, labio inferiore elongato lato concavo.

Hab. in Indiæ orientalis peninsula: in Coromandelia *Wight*! (*v. s. sp. in herb. Wight.*)

C. macrostachydi affinis, sed omnibus partibus multo minor. Folia minora, minus acuminata, basi sæpius cordata, floralia vix ciliata, ante anthesin decidua. Caulis tenuissime canescens, rachis racemi pilis brevibus purpurascentibus viscosis pubescens. Racemus basi utrinque ramo auctus. Verticillastri semipollicem remoti, 6-10-flori. Corolla *C. malabarici*, a quo differt foliis minoribus ovatis nec lato-ovatis, calycibus magis inflatis, racemo minus ramoso.—An *C. malabarici* varietas?

24. *C. MALABARICUS* (Benth. in Wall. Pl. As. Rar. 2. 16), tenuiter pubescens, foliis petiolatis amplis latissime ovatis breviter acuminatis crenatis basi rotundato-truncatis, floralibus deciduis, racemis laxè ramosis, verticillastris sub-10-floris laxis, pedunculo communi utrinque subnullo, ramis abbreviatis, calycibus fructiferis deflexis glabris basi subinflatis, intus fauce nuda, dente supremo ovato acutiusculo marginibus revolutis, inferioribus lanceolatis acutis, 2 lateralibus supremum æquantibus, 2 infimis duplo longioribus ad basin cum lateralibus ultra medium invicem connatis, corollæ tubo tenui exserto, fauce ampliata, labio inferiore elongato porrecto.

Plectranthus malabaricus. Klein MSS.

Hab. in Indiæ orientalis peninsula: ad Travancore *Klein*! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis herbaceus, erectus, ramis divaricatis fere glabris. Folia inferiora longissime petiolata, 3-4 poll. et ultra longa et totidem lata, supra glabriuscula, subtus ad nervos pubescentia, floralia minuta, ante anthesin decidua. Racemi 4-6-pollicares, basi in ramis 2-4 divisi. Calyx floriger minutus, fructifer valde auctus. Corolla circiter 7 lineas longa (tubus 3 lin. faux 2 lin. labium inferius 2 lin.) Genitalia breviter exserta. Achenia subrotunda, compressa, lævia.

Aug. 1832.

25. *C. INFLATUS*, glaber, foliis petiolatis amplis ovatis acuminatis dentatis basi longe angustatis integerrimis, floralibus deciduis, racemis subramosis, verticillastris irregulariter cymæformibus, pedunculo communi utrinque subnullo, ramis alternis vel omnibus elongatis, pedicellis abbreviatis, calycibus fructiferis nutantibus glabris inflatis, intus fauce nuda, dente supremo ovato-lanceolato acuminato plano, inferioribus lanceolatis acutis, 2 lateralibus supremum æquantibus, 2 infimis vix longioribus basi cum lateralibus ultra medium invicem connatis, corollæ tubo elongato, fauce subæquali, labio inferiore superiore vix longiore.

Hab. in Ceylona *Macrae*! (*h. s. sp. comm. a cl. Lindley.*)

Affinis *C. malabarico*, sed characteribus datis distinctissimus. Caulis crassus, subcarnosus. Folia inferiora semipedalia vel cum petiolo fere pedalia, floralia lato-ovata, membranacea, acuminata, ante anthesin comosa, per anthesin decidua. Rami pedunculorum sæpe pollicares, basi incrassati, pedicelli calyce fructifero multo breviores. Corollæ 10 lin. vel ultra longæ, tubo subincurvo vix defracto. Achenia magna, rotundata, compressa, læviuscula.

26. *C. MACRÆI*, pubescens, foliis longe petiolatis ovatis acuminatis basi rotundatis vel cuneatis, floralibus deciduis, racemis paniculato-ramosis, verticillastris quadrifariam cymosis, pedunculo communi utrinque subnullo, ramis valde elongatis, pedicellis brevissimis, calycibus fructiferis nutantibus glabris basi subinflatis, intus fauce nuda, dente supremo ovato acutiusculo marginibus revolutis, inferioribus lanceolatis acutis, 2 lateralibus supremum æquantibus, 2 infimis duplo longioribus basi cum lateralibus ultra medium invicem connatis, corollæ tubo exserto, fauce amplissima, labio inferiore elongato porrecto.

Hab. in Ceylona *Macrae*! (*h. s. sp. comm. a cl. Lindley.*)

Caules et præsertim axis et rami paniculæ pilis brevibus rufescentibus subviscosis pubescentes. Folia 2-3-pollicaria, supra et subtus ad nervos tenuiter pubescentia. Paniculæ et pedunculorum rami brachiati. Calyces secus ramos subsessiles, secundi, forma omnino *C. malabarici*, a quo differt hæc species foliis multo minoribus angustioribus et inflorescentia. Genitalia vix exserta. Achenia subrotunda, compressa, nigra, lævia.

27. *C. GLABRATUS*, caule subcarnoso glabro, foliis petiolatis ovato-rotundatis serrato-crenatis crassis rigidis glabris, floralibus minutis deciduis, racemo terminali pubescente simplici paniculæformi, verticillastris laxè cymiformibus, pedunculo communi utrinque ramis pedicellisque elongatis, calycibus fructiferis glabratis elongatis, dente supremo ovato supra concavo, inferioribus lanceolatis acutis subæqualibus basi vix connatis, corollæ fauce ampliata.

Hab. in Indiæ orientalis peninsula: circa Madura *Wight*! (*v. s. sp. in herb. Wight.*)

Specimina Wightiana vix 9-pollicaria, caule basi adscendente crasso tumido. Folia pollicaria, subtus rigide nervosa. Racemus vel panicula tenuis, multiflorus. Rachis, pedunculi, calyces florigeri, et corollæ pubescentes. Calyx fructifer glabratus, basi subinflatus, fauce subcontracta elongata intus nuda, dente supremo obtuso supra concavo lævissimo sublucido, inferioribus ei subæqualibus. Achenia pallida, lævia.

28. *C. WIGHTII*, caule pubescente, foliis petiolatis ovatis crenatis basi rotundatis vel subcordatis crassis rugosis utrinque hispidis, floralibus deciduis, racemo terminali simplici paniculæformi, verticillastris laxè cymæformibus, pedunculo communi utrinque ramisque elongatis, calycibus pedicello sublongioribus, fructiferis declinatis pubescentibus, dente supremo ovato subplano, inferioribus lanceolatis acutis subæqualibus basi vix connatis, corollæ fauce ampliata, labio inferiore superiore subquadruplo longiore.

Hab. in Indiæ orientalis peninsula: in montibus Nielgherry dictis *Wight!* (*h. s. sp. comm. a cl. Wight.*)

29. *C. PANICULATUS* (Benth. in Wall. Pl. As. Rar. 2. 16), caule basi procumbente pubescente, foliis petiolatis lato-ovatis inciso-dentatis basi rotundatis vel cuneatis crassis carnosus hispidis, floralibus deciduis, racemo terminali simplici paniculæformi, verticillastris laxè cymæformibus, pedunculo communi utrinque ramis pedicellisque elongatis, calycibus fructiferis declinatis pubescentibus, fauce intus nuda, dente supremo ovato plano, inferioribus lanceolato-subulatis subæqualibus basi vix connatis, corollæ fauce ampliata, labio inferiore superiore vix duplo longiore.

Hab. in India orientali: in montibus Dindygul peninsulæ *Wight!* (*h. s. sp. e Mus. Angl. Ind.*)

A *C. Wightii* differt foliis latioribus crassioribus carnosus magis incisus et basi sæpe cuneatis vel angustatis nec cordatis, racemo laxiore, calycis lobis inferioribus angustioribus, et corolla labio inferiore brevior.

Species quoad sectionem dubia.

30. *C. TUBEROSUS.*

Plectranthus tuberosus. *Blume Bijdr.* 838.

Glans terrestris costensis. *Rumph. Herb. Amb.* 5. 372. t. 132. f. 1.?

Hab. . . . in hortis Javanicis colitur *Blume.*

"*P. calycis hirsuti labio inferiore trifido lacinia intermedia longiore semi-bifida, filamentis basi monadelphis, verticillis distinctis, pedicellis unifloris, foliis ovatis crenatis basi cuneatis integerrimis utrinque scabriusculis.*"—*Blume l. c.*

Species e genere excludenda.

C. RUGOSUS. *Benth.* = *Plectranthus rotundifolius.*

IX. ANISOCHILUS.

Lavandulæ sp. *Linn.*

Plectranthi sp. *Roxb. Sm. et Auct.*

Genus novum. *Br. Prod.*

Anisochilus. *Wall.*

Calyx ovatus, suberectus, bilabiatus, labio superiore integro post anthesin in inferiorem truncatum integrum vel brevissime 4-dentatum incumbente, calycem claudente. Corolla tubo exserto defracto, fauce subinflata, limbo bilabiato, labio superiore abbreviato obtuse 3-4-fido, inferiore integro elongato concavo. Stamina 4, declinata, inferiora longiora. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice subulatus, æqualiter bifidus, stigmatibus subterminalibus.—Herbæ annuæ vel perennes. Verticillastri in spicas oblongas cylindricas dense imbricati. Folia floralia bractæformia imbricata.

This genus, as far as it is hitherto known, is confined to the Indian continent.

1. *A. CARNOSUM* (Wall. Pl. As. Rar. 2. 18), caule erecto, foliis petiolatis ovato-rotundatis obtusis crenatis basi cordatis crassis carnosus

utrinque tomentoso-villosis, spicis longe pedunculatis, foliis floralibus ovatis obtusis, calycis labio inferiore truncato integerrimo, superiore ovato acuto membranaceo margine ciliato.

Katu Kurka. *Rheede Hort. Mal.* 10. 179. t. 90.

*Lavandula carnos*a. *Linn. ! Amœn. Acad.* 10. 56. t. 3.

Plectranthus carnosus. *Sm. in Rees Cycl.* v. 27.

Plectranthus strobiliferus. *Roxb. ! Hort. Beng.* 45.

Plectranthus dubius. *Spr. Syst.* 2. 691.

Plectranthus crassifolius. *Hortul.*

β *purpurascens*, spicis glabriusculis purpurascentibus.

Hab. in India orientali: in ruderatis et muris antiquis peninsulæ a provincia Circarensi *Roxburgh*, ad extremitatem australem *Wight !* β , in montibus Avæ ad Taong Dong *Wallich !* (*h. s. sp. e Mus. Angl. Ind.*)

Caulis herbaceus, bipedalis, ramosus, tetragonus, villosus, superne subnudus. Spicæ longe pedunculatæ, vix paniculatæ, fructiferæ 1-2 pollices longæ, semipollicem crassæ, regulariter cylindricæ. Calyces fructiferi basi subinflati, ore contracto, tenuiter rufo-tomentosi, labio superiore maximo glabro deflexo. Corollæ calyce duplo longiores, labio inferiore elongato concavo stamina excedente.

2. *A. PALLIDUM* (Wall. Pl. As. Rar. 2. 18), caule erecto, foliis petiolatis oblongo-ellipticis crenatis utrinque angustatis membranaceis vel vix carnosis glabriusculis, spicis paniculatis, floralibus lanceolato-acuminatis, calycis labio inferiore oblique truncato brevissime 4-dentato, superiore lanceolato acuto post anthesin demisso.

Hab. in India orientali: ad montem Taong Dong dictum in regno Burmanico *Wallich !* (*h. s. sp. e Mus. Angl. Ind.*)

Statura *A. carnosi*. Folia 3-6 pollices longa, 1-3 poll. lata, acuminata, grosse crenata, supra vix hispidula, subtus fere glabra. Spicæ pedunculatæ, laxè paniculatæ, tenuiores quam in *A. carnos*o. Calyces fructiferi basi subinflati, superne incurvi, ore obliquo, labio superiore parvo acuto, ex omni parte ferrugineo-tomentosi. Corolla fere *A. carnosi*, at tenuior.

3. *A. ? POLYSTACHYUM* (Benth. in Wall. Pl. As. Rar. 2. 19), caule recto ramoso, foliis subsessilibus ovato-oblongis acuminatis serratis basi cuneatis tenuissime pubescentibus subtus nervosis, spicis paniculatis, calycibus superne incurvis, ore obliquo 5-dentato, dente supremo vix longiore.

Hab. in India orientali: in uliginosis Napaliæ prope Hetoundah *Wallich !* (*h. s. sp. e Mus. Angl. Ind.*)

Statura *A. polystachyi*. Caulis obtuse tetragonus, brevissime tomentosus. Folia 2-4-pollicaria, supra tenuissime pubescentia, subtus nervosa, minute glandulosa, rufescentia, rigidiuscula. Spicæ 2-3-pollicares, semipollicem crassæ. Calyces rufo-tomentosi, basi inflati, superne contracti elongati incurvi, ore oblique fisso, dentibus 5 brevibus acutis subæqualibus, supremis subincumbentibus. Corollam non vidi; sed ob habitum et calyces *A. pallidi* affines, ad *Anisochilum* hanc speciem retuli.

4. *A. DYSOPHYLLOIDES* (Benth. in Wall. Pl. As. Rar. 2. 19), caule basi procumbente, ramis adscendentibus sericeo-villosis, foliis subsessilibus oblongo-lanceolatis obtusis integerrimis basi angustatis, spicis axillaribus terminalibusque subpedunculatis, calycis labio inferiore minuto truncato, superiore parvo acuto deflexo.

Hab. in India orientali: in montibus peninsulæ Nielgherry dictis *Wight !* (*h. s. sp. e Mus. Angl. Ind.*)

Habitus fere *Dysophyllæ rugosæ*. Ex omni parte pilis mollis rufescentibus sericeis dense vestitum. Folia pollicem vel sesquipollicem longa, 4-6 lineas lata, floralia ovata, acuta. Spicæ florentes regulariter cylindricæ, crassitie calami scriptorii, fructiferæ irregulariter tumidæ, 1-2 pollices longæ. Calyces fructiferi basi tumidi, superne incurvi, ore contracto, labio superiore brevi acuto concavo incumbente. Corolla brevior quam in præcedentibus, lobis latioribus. Stamina exserta.

X. *ÆOLANTHUS.*

Æolanthus. Mart. *Amœn. Bot. Monac.* 4.

Calyx ovato-campanulatus, truncatus, dentibus obsoletis, fauce intus nuda; fructifer clausus, basi circumscissus. Corolla tubo exserto extra calycem decurvo superne subdilatato, limbo bilabiato, labio superiore lato obtuse quadridentato, inferiore integro longiore concavo. Stamina 4, declinata, didynama, inferioribus longioribus. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice breviter bifidus, lobis subulatis, stigmatibus minutis subterminalibus.

The single species known of this genus has not been seen in a wild state, but is probably of Asiatic origin. It is nearly allied to *Plectranthus*, and especially to *Anisochilus*, from which it differs only by the calyx.

1. *Æ. SUAVIS* (Mart. ! *Amœn. Bot. Monac.* 4. t. 2).

Hab. in India orientali? in hortis Chinensium ad Santa Cruz in Brasilia cultus *Martius* ! (v. s. c. in *herb. Martius.*)

Radix annua. Caulis erectus, spithamæus et pedalis, obsolete tetragonus, brachiato-ramosus. Rami uti caulis pilis tenuissimis pubescentes. Folia subsessilia, obovata, integerrima, vel hinc inde obsolete denticulata, basi angustata, crassiuscula, dilute viridia, glabra, utraque facie punctis impressis notata, floralia infima parva subconformia, superiora bractæformia. Cymæ vel rami floriferi axillares et terminales, erecti, plerumque trifidi, ad divisiones bracteis vel foliis floralibus parvis caulinis conformibus instructi. Cymarum rami vel racemi partes florigeræ tandem crassescentes et delapsu bractearum vel foliorum floralium cicatrizatæ. Flores pulchri, secus ramos cymæ disticha serie dispositi, secundi, brevissime pedicellati. Bractæ (vel folia floralia) pro quavis flore 2 parum concavæ, ciliatæ, ovatæ, inferior emarginato-bidentata, pubescens. Calyx bractea inferiore brevior, pubescens. Corolla lilacina, tenuissime pubescens, labio superiore striis violaceis picto. Achenia calyce paullo ampliato oreque connivente clauso, sed tandem ima basi siccescente et circumscisso involuta, dorso concava, intus bifacialia. Odor totius plantæ suavis.

XI. *PYCNOSTACHYS.*

Pycnostachys. Hook. *Exot. Fl.* 2. t. 202.

Calyx ovatus, subæqualis, dentibus 5 subulato-spinosis. Corolla tubo exserto defracto bilabiata, labio superiore quadridentato, inferiore integro concavo. Stamina 4, declinata, inferioribus longioribus. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice subulatus, brevissime et æqualiter bifidus.—Herba, verticillastris in spicis simplicibus dense approximatis.

A single Madagascar species constitutes this genus, which only differs from the section *Pyramidium* of *Plectranthus* in the form of the calyx, and in habit.

1. *P. CÆRULEA* (Hook. ! l. c.)

Hab. in Madagascaria *Bojer* ! (v. s. c. in *herb. Hooker et s. sp. in herb. Mus. Par.*)
May 1833.

Caulis herbaceus, erectus, ramosus, glaber, tetragonus. Folia sessilia, oblongo-linearia vel lanceolata, acuta, remote serrata, basi angustata, glabra, subtus glandulosa; floralia bractæformia calyce breviora. Spica densa, terminalis, 1-2-pollicaris. Calyces fructiferi sessiles, globoso-campanulati, glabri, striati, ore truncato, dentibus teretibus subulatis rigidis subspinosus tubo longioribus, appendicibus intermediis ad faucem calycis parvis obtusis membranaceis. Corolla cœrulea, calycem flori-ferum dimidio superans, glabra, tubo exserto, basi infra gibbo, medio defracto, fauce parum dilatata, labio superiore patente brevi truncato breviter 4-dentato, inferiore dilatato orbiculato concavo acuminato. Stamina declinata, labium inferius æquantia. Filamenta basi dilatata, subconnata, usque ad faucem corollæ adnata. Stylus subinteger. Achenia subrotunda, pallida, lævia.

XII. PELTODON.

Peltodon. Pohl. *Pl. Bras. Ic.* 1. 66.

Calyx campanulatus, æqualis, 5-dentatus, dentibus æqualibus erectis subulatis apice in appendicem peltatum subconcavum ciliatum dilatatis, fauce barbata; fructifer auctus, membranaceus, subinflatus. Corollæ tubus rectus, subinflatus, dentes calycinos subæquans; limbus subbilabiatus, labio superiore bifido patente, inferiore longiore declinato, lobis lateralibus oblongis patentibus, medio substipitato, basi angustato transversim subcalloso, dein oblongo saccato acuto integerrimo, per anthesin abrupte dejecto.* Stamina 4, didynama, inferioribus longioribus, declinata. Filamenta libera, edentula, glabra. Antheræ ovato-reniformes, loculis subconfluentibus. Stylus apice breviter bifidus, stigmatibus terminalibus submarginalibusve. Achenia subrotundo-compressa, nuda, lævia.—Herbæ habitu *Hyptidum capitatarum*, a quibus nonnisi calyce differunt.

The *Peltodons* hitherto known are all from the mountains of the interior of Brazil.

1. *P. pusillus* (Pohl! *Pl. Bras. Ic.* 1. 67. t. 54), caule humili subsimplici, foliis sessilibus ellipticis crenatis glabris ad nervos pilosis, bracteis basi rotundatis cuneatisve pilosis flores subsuperantibus.

Hab. in Brasilia: in pascuis siccis circa Trahiras et Natividade provinciæ Goyaz Pohl! in pascuis exaratis prope Villa Boa ejusdem provinciæ A. de St. Hilaire! in Brasilia meridionali Sello! (*h. s. sp. comm. a cl. Otto, et v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Radix perennis, lignosa. Caulis herbaceus, subteres, in exemplaribus majoribus procumbens, in nanis suberectus, nunc vix 2 poll. longus, nunc elongatus procumbens, apicibus adscendentibus. Folia in exemplaribus nanis vix semipollicem longa, in majoribus 2-3-pollicaria, obtusa, margine undulato-crenata, basi rotundata vel cuneata, subcoriacea, supra bullata glabra, subtus nervis reticulatis valde prominentibus glabra, lucida, præter nervos pilosiusculos. Capitulum hemisphæricum, pollicem circiter diametro, pedunculo fere semipedali pilosiusculo. Bractæ exteriores 6-8, capitulum æquantes, lato-ovata, obtusissimæ, integerrimæ vel vix crenatæ, basi rotundatæ, cuneatæ vel rarius longe angustatæ, trinerves, juniores lutescentes,

* Judging from the otherwise excellent figures and descriptions of three species of this genus given in M. Pohl's work, it would appear that the peculiar form of the lower segment of the corolla, which they have in common with *Hyptis*, *Marsypianthes*, and *Eriope*, has escaped that author's attention.

utrinque pilosæ, interiores minutæ setaceæ. Calyx fructifer valde auctus, dentibus latitudine tubi brevioribus, pelta parva ciliata. Corolla alba. Tubus extus glaber, dentes calycinos parum excedens. Labium inferius superiore duplo longior, lobo medio lateralibus subæquali, extus barbato. Achenia inflata, aqua immersa non pulposa.

2. *P. LONGIPES* (St. Hil. MSS.), caule brevi procumbente subsimplici glabro vel pubescente, foliis sessilibus ellipticis crenatis glabris vel ad nervos pilosis, bracteis basi rotundatis cuneatisve glabris pilosisve floribus subbrevioribus.

Hab. in Brasilia: ad rivulos prope Santa Borja in Missionibus Uruguayensibus et in campis prope Curitiba provinciæ Sancti Pauli *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Ab exemplaribus majoribus *P. pusilli* non differt nisi pedunculo duplo longiore (fere sesquipedali), bracteis brevioribus, et calycibus corollisque atropurpureis nec albo-flavescentibus.

3. *P. RADICANS* (Pohl! Pl. Bras. Ic. 1. 68. t. 55), caule repente ramoso radicante villosus, foliis petiolatis ovatis obtusiusculis crenatis basi rotundatis subcordatisve supra et subtus ad nervos hispidulis, bracteis crenatis basi cordatis.

Hab. in Brasilia: in montosis gramineis ad Villa Rica (nunc Cidade de Ouro Preto) provinciæ Minas Geraes *Pohl!* in sylvis ad præsidium S. João Baptisto ejusdem provinciæ *Martius!* in sylvis primævis provinciarum Rio Janeiro et Minas Geraes frequens *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Caules elongati, tetragoni, præsertim in parte superiore uti pedunculi pilis rufescentibus villosi. Folia 1-2-pollicaria, plana vel vix rugosa, supra pilis sparsis plus minusve hispida, subtus ad nervos hispidula, cæterum glabra, margine ciliata, petiolo $\frac{1}{4}$ -1-pollicari subulato. Inflorescentia et flores *P. pusilli*, sed bracteæ exteriores parum longiores, margine frequentius crenatæ, et basi cordatæ nec cuneatæ. Corolla alba.

4. *P. TOMENTOSUS* (Pohl! Pl. Bras. Ic. 1. 69. t. 56), caule ramoso villosus, foliis ovalibus crenatis basi rotundato-cuneatis et in petiolum decurrentibus pilosis subtus tomentosis, bracteis exterioribus cordato-auriculatis crenatis villosis.

Hab. in Brasilia: in pascuis siccis circa Fazenda de Almas in via de Paracatu do Principe ad Rio San Antonio provinciæ Minas Geraes *Pohl!* in campis altis ejusdem provinciæ frequens *Martius!* in campis herbidis prope San João del Rey ejusdem provinciæ et prope Pirangara, Taubate, et Pindamonhongaba, provinciæ Sancti Pauli *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Radix perennis, lignosa. Caulis herbaceus, secundum *Pohl* erectus, sed mihi potius procumbens vel adscendens videtur, subtetragonus, 2-pedalis et ultra, pilis brevibus rufis villosus. Folia acutiuscula, rugosa, supra hispida, infra rufo-vel pallido-tomentosa, basi rotundata, et in petiolum brevem subulatum angustata. Pedunculi firmi, 3-5-pollicares, villosi. Capitula demum plus pollice diametro. Bracteæ exteriores 6-8, calyces excedentes, ovatæ, obtusæ, crenatæ, rugosæ, utrinque villosæ, basi profunde cordatæ, auriculis obtusis. Calyx præcedentium, sed dentes crassiores, appendice maximo. Corolla "sordide flavo-purpurea" (*St. Hil.*), tubo superne inflato; labii inferioris lobo medio lateralibus dimidio brevior oblongo extus longe barbato.

XIII. MARSYPIANTHES.

Marsypianthes. Mart. MSS.

Calyx campanulatus, basi angustatus, æqualis, 5-dentatus, dentibus æqualibus lanceolatis erecto-patentibus, intus fauce nuda. Corollæ tubus rectus, dentes calycinos subæquans, limbus subbilabiatus, labio superiore bifido, inferiore trifido, lobis lateralibus uti lobi labii superioris ovatis erecto-patentibus subæqualibus, infimo saccato basi substipitato apice acuminato per anthesin abrupte dejecto. Stamina 4, didynama, inferioribus longioribus, declinata. Filamenta libera, edentula, glabra. Antheræ ovato-reniformes, loculis subconfluentibus. Stylus apice breviter bifidus, lobis subcomplanatis, stigmatibus submarginalibus. Achenia ovoidea, compressa, intus concavo-cymbiformia, margine membranaceo involuto fimbriato.

I have before me but one species from tropical America. Some of the specimens I saw in the Brazilian Museum at Vienna appeared to belong to distinct species; but I had not time during my stay there to examine them. This genus, as well as *Peltodon*, is closely allied in habit and characters to the capitate *Hyptides*, but differs in the calyx, and especially in the fruit.

1. M. HYPTOIDES. (Mart. MSS.)

Clinopodium chamædrys. Vahl! Symb. 3. 77.

Hyptis chamædrys. Willd.! Sp. Pl. 3. 85. Poit.! Ann. Mus. Par. 7. 468. t. 27. f. 4. male.

Hyptis pseudochamædrys. Poit.! Ann. Mus. Par. 7. 469. t. 31. f. 1.

Hyptis inflata. Spr. Syst. Veg. 2. 731.

Hyptis lurida. Spr. Syst. Veg. 2. 731.

Hab. in Americæ æquinotialis cultis, ruderatis, campis, arenosis maritimis, &c.: frequens in Mexico *Haenke!* in ins. Porto Rico *Bertero!* et Trinitatis *Lockhart!* in Cayenna *Perrottet!* in Brasiliæ provinciis Para *Martius!* Bahia *Salzmann!* *Martius!* Rio Janeiro et Minas Geraes *Martius!* A. de St. Hilaire! ad Guayaquil *Tafalla!* (h. s. sp.)

Herba annua, procumbens, ramorum et pedunculorum longitudine, foliorum forma, et villositate omnium partium magnopere varians. Caules nunc vix 2-pollicares, sæpius ultra pedales, uti tota planta glabri, pubescentes, tomentosi vel longe pilosi. Folia inferiora plus minusve petiolata, superiora subsessilia, rotundata, ovata, ovato-lanceolata, lanceolata vel oblonga, acuta vel obtusiuscula, serrata vel crenata, basi angustata, cuneata vel rotundata, rarius subcordata, nunc tenuia, subglabra, sæpius rugosula, pubescentia vel tomentosa, interdum rugosissima, hispida vel rufo-tomentosa, floralia conformia. Verticillastri subsecundi. Florum capitula densa, 6-30-flora, sessilia vel plus minusve pedunculata. Bractæ lanceolato-lineares vel subulatæ, calycem æquantes. Calyces villosi dentibus lanceolatis acutis, fructiferi erectis, patentibus vel reflexis. Corolla cœrulea vel purpurascens, calycem vix excedens.

XIV. HYPTIS.

Ballotæ et Nepetæ sp. Linn. et Auct. vet.

Bystropogonis sp. L'hér.

Hyptis. Jacq. et Auct. recent.

Calyx ovatus v. tubulosus, ore recto v. obliquo, dentibus 5 sub-

æqualibus acutis v. subulato-aristatis. Corolla tubo calycem subæquante, 3-4-fida, subbilabiata, lobis 4 superioribus integerrimis planis omnibus distinctis v. supremis coalitis, infimo per anthesin abrupte deflexo saccato, ad basin contracto subarticulato. Stamina 4, declinata. Filamenta libera, edentula. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice subæqualiter bifidus, lobis subulatis. Stigmata plerumque terminalia, minuta, facie interna loborum styli rarius omnino stigmatifera. Discus æqualis, latere infimo sæpius dente obtuso brevi acuto. Achenia ovoidea, oblonga vel compressa, lævia vel rarius rugosa, in speciebus nonnullis ala plana membranacea marginata, nec navicularia. Herbæ suffruticesve, inflorescentia et habitu magnopere variabiles.

This extensive genus is almost entirely American, and indeed exclusively so, if the few species found here and there in the tropical parts of the Old Continent have in fact, as is most probable, been carried thither from the New World. Nearly the whole of the species are found in the mountains of Brazil, New Spain, or Guiana, or on the borders of the Orenoco. A few extend northward into Mexico and the West Indian islands, and one, the *H. radiata*, as far as the southern states of the North American Union. To the westward, *Hyptides* are to be met with along the western declivity of the Peruvian Andes from Guayaquil to Lima, but to the southward none have been gathered beyond the limits of the Brazilian empire. In Haenke's Herbarium are, however, a few of the common South Brazilian species, said to have been collected at Cochabamba in Southern Peru; but his stations are so very uncertain, that not much reliance is to be placed on his authority in this case.

Looking to the large number of species, and to the great variety in their habit, it would seem at first more convenient to divide this group into a number of genera; but on examination, the essential characters have proved to be so nearly the same in all, the differences consisting chiefly in the uncertain character of inflorescence, that I have preferred considering the different groups into which they may be distributed as mere sections, adopting only the *Peltodon* of Pohl, *Marsypianthes* of Martius, and *Eriope* of Bonpland (in Herb. Kunth), each of which is separated from the mass by positive characters. The remaining species affect almost every variety of inflorescence observable in the tribe of *Labiata*. The ordinary dense verticillasters of *Minthidium* are condensed into spikes in *Gymneia* and *Spicaria*. In *Cyrta*, *Plagiotis*, *Eriosphæria*, *Cyanocephalus*, *Xanthiophæa*, *Trichosphæria*, and *Cephalohyptis*, each cyme, by the lengthening of the peduncle, and reduction of the pedicels, becomes a dense globose or hemispherical head, surrounded by an involucre of closely appressed imbricate bracts. In *Polydesmia* the heads are reduced in size, but being very numerous usually form ample panicles. The panicles of *Mesosphæria* are composed of smaller heads, of which the flowers are more lax, and not enveloped by bracts. These heads become imperfect cymes in *Buddleioides* and *Pectinaria*, assume the normal cymose appearance in *Siagonarrhen*, and are reduced to single solitary flowers along the branches of the ample panicles of *Hypenia*. Of the allied genera, *Peltodon* and *Marsypianthes* have the capitate inflorescence of *Cephalohyptis*,

&c.; and *Eriope*, which comes next to *Hypenia*, has the same solitary opposite flowers as in *Scutellaria*.

CONSPECTUS SECTIONUM.

Bracteæ numerosæ adpressæ calycem æquantes vel parum breviores.	
Verticillastri compacti, cymis utrinque indistinctis.	
Calyx apice recurvus	I. GYMNEIA.
Calyx rectus.	
Verticillastri in spicam terminalem approximati	II. SPICARIA.
Verticillastri remoti.	
Verticillastri in racemum simplicem denudatum dispositi	III. APODOTES.
Verticillastri in racemos breves paniculatos dispositi	XII. POLYDESMIA.
Verticillastri in axillis foliorum caulinis conformium.	
Achenia lævia	XI. CEPHALOHYPTIS.
Achenia rugosa	III. APODOTES.
Verticillastri e capitulis duobus distinctis pedunculatis vel subsessilibus compositi.	
Calyx apice recurvus vel obliquus.	
Calyx fructifer apice recurvus	V. CYRTA.
Calyx ore incurvus, dentibus inæqualibus	IV. PLAGIOTIS.
Calyx rectus.	
Capitula ovoidea pauciflora.	
Capitula longe pedunculata, dentibus calycinis subulatis molliter villosis elongatis	VIII. OOCEPHALUS.
Capitula breviter pedunculata, dentibus calycinis lanceolatis vel breviter setaceis subglabris	XII. POLYDESMIA.
Capitula dense multiflora.	
Capitula etiam juniora globosa.	
Dentes calycini tubo plus triplo longiores	IX. TRICHOSPHERIA.
Dentes calycini tubo breviores vel vix duplo longiores.	
Bracteæ subulatæ.	
Calyx turbinatus medio parum inflatus	VI. CYANOCEPHALUS.
Calyx medio valde inflatus, ore contracto	X. XANTHIOPHÆA.
Bracteæ lanceolatæ vel lineares	XI. CEPHALOHYPTIS.
Capitula saltem juniora semiglobosa (bracteis et floribus inferioribus non reflexis).	
Flores lana densa vel tomento sericeo immersi	VII. ERIOSPHÆRIA.
Calyces glabri vel villosi nec lana densa immersi.	
Capitula subsessilia numerosa in racemos densos paniculatos disposita	XII. POLYDESMIA.
Capitula longe pedunculata vel in axillas foliorum caulinis conformium disposita	XI. CEPHALOHYPTIS.
Bracteæ minutæ vel paucæ laxæ subulatæ.	
Cymæ in verticillastro condensatæ	XV. MINTHIDIUM.

Cymæ capitatæ.

Calyx oblique campanulatus, fauce intus plus minusve villosa . . .

XIII. MESOSPHERIA.

Calyx rectus æqualis, fauce intus nuda . . .

XVI. BUDDLEIODES.

Cymæ umbellæformes . . .

XVII. UMBELLARIA.

Cymæ elongatæ dichotomæ.

Calyx fauce intus villosa . . .

XIV. PECTINARIA.

Calyx fauce intus nuda.

Caulis superne tomentosus . . .

XVIII. SIAGONARRHEN.

Caulis superne glaberrimus glaucus . . .

XIX. HYPENIA.

Flores solitarii paniculati vel racemosi . . .

XIX. HYPENIA.

CONSPECTUS SPECIERUM.

SECT. I. GYMNEIA. *Bracteæ numerosæ adpressæ subulatæ. Verticillastri multiflori spicati vel globosi remoti. Calyces fructiferi apice recurvi.*

Spica brevis densa . . .

1. H. VIRGATA.

Verticillastri inferiores remoti.

Folia oblongo-elliptica utrinque viridia . . .

2. H. INTERRUPTA.

Folia lato-ovata angulato-lobata subtus alba . . .

3. H. PLATANIFOLIA.

SECT. II. SPICARIA. *Bracteæ numerosæ adpressæ. Verticillastri multiflori spicati vel inferiores subremoti. Calyces fructiferi recti.*

Spicæ in paniculam ramosam approximati . . .

6. H. STRICTA.

Spicæ simplices terminales.

Spica densa . . .

4. H. SPICIGERA.

Spica interrupta . . .

5. H. LOPHANTHUS.

SECT. III. APODOTES. *Bracteæ numerosæ adpressæ. Capitula subdistincta sessilia. Verticillastri omnes remoti.*

Capitula omnia axillaria foliis floralibus caulinis conformia.

Achenia rugosa.

Dentes calycini recti . . .

10. H. HIRSUTA.

Dentes calycini uncinati . . .

9. H. UNCINATA.

Achenia lævia. (Vide Sect. XI. *Cephalohyptis*.)

Caulis superne denudatus, foliis floralibus bractæformibus.

Calyces pubescentes nigrescentes . . .

7. H. NUDICAULIS.

Calyces sericeo-lanati . . .

8. H. SERICEA.

SECT. IV. PLAGIOTIS. *Bracteæ numerosæ adpressæ ovatæ. Capitula pedunculata globosa dense multiflora. Calyx ore incurvus, dentibus ovatis inæqualibus.*

Frutex elatus . . .

11. H. ODORATA.

Herba humilis . . .

12. H. ULIGINOSA.

SECT. V. CYRTA. *Bracteæ numerosæ adpressæ subulatæ. Capitula pedunculata globosa dense multiflora. Calyx fructifer apice recurvus, dentibus subulatis.*

Calyces breviter tomentoso-pubescentes.

Folia ovata.

Folia basi cordata rotundata vel rotundato-cuneata.

Folia dense sericeo-villosa . . .

14. H. PALUDOSA.

Folia tenuia villosa-pubescentia . . .

13. H. RECURVATA.

Folia basi angustata cano-tomentosa . . .

15. H. MICROPHYLLA.

Folia lanceolata vel linearia.

Folia incana basi longe angustata apice serrata.

Rami virgati. Folia linearia . . . 17. H. LAVANDULACEA.

Rami adscendentes. Folia lineari-lanceolata . . . 16. H. DIVARICATA.

Folia viridia lanceolato-cuneata profunde dentata . . . 18. H. CAPRARIÆFOLIA.

Calyces villosi.

Folia petiolata.

Folia supra scabra subtus rufo-tomentosa . . . 20. H. BRUNNESCENS.

Folia utrinque molliter rubiginoso-villosa . . . 19. H. DESERTORUM.

Folia sessilia vel subsessilia.

Folia ovata basi rotundata patentia . . . 21. H. REFLEXA.

Folia cordata erecta . . . 22. H. CARDIOPHYLLA.

SECT. VI. CYANOCEPHALUS. *Bracteæ numerosæ adpressæ subulatae. Capitula pedunculata globosa dense multiflora. Receptaculum subnudum. Calyx fructifer turbinato-tubulosus basi glaber, dentibus subulatis rectis molliter villosissimis.*

Folia sessilia basi cordato-amplexicaulia.

Rami dense lanati vel villosissimi.

Folia distantia utrinque molliter villosa . . . 29. H. MOLLISSIMA.

Folia crebra utrinque dense lanato-hirsuta . . . 23. H. LANATA.

Folia supra pubescentia subtus cano-tomentosa . . . 27. H. NERVOSA.

Rami et folia albo-tomentosa . . . 28. H. CANDIDA.

Rami pubescentes.

Folia lato-ovata rigida glabriuscula supra demum lucida . . . 26. H. FRAGILIFOLIA.

Folia ovata inferiora glabriuscula superiora canescentia.

Folia patentia . . . 25. H. RIGIDA.

Folia erecta cauli adpressa . . . 24. H. ADPRESSA.

Folia petiolata vel subsessilia basi rotundata cuneata vel angustata.

Folia ovato-rotundata.

Folia crassa utrinque densissime villosa . . . 30. H. ARGUTA.

Folia rigida utrinque breviter rufo-villosa . . . 31. H. RUGOSA.

Folia obovato-cuneata . . . 32. H. CUNEATA.

Folia ovata oblonga lanceolata vel linearia.

Rami et folia glabriuscula vel rufo-pubescentia.

Folia ovata . . . 33. H. LIPPIOIDES.

Folia linearia lanceolata vel oblongo-ovata.

Folia argute serrata subincisa.

Folia linearia . . . 34. H. SELAGINIFOLIA.

Folia lanceolata vel oblongo-ovata.

Caules procumbentes . . . 37. H. INCISA.

Caules erecti . . . 36. H. BISIDENTATA.

Folia obtuse serrata vel crenata.

Folia linearia subsessilia . . . 35. H. PEDUNCULARIS.

Folia lanceolato-oblonga petiolata margine undulata . . . 38. H. LONGIPES.

Rami et folia mollissime villosa.

Folia petiolata . . . 40. H. ELONGATA.

Folia subsessilia . . . 39. H. ALBIPES.

SECT. VII. ERIOSPHÆRIA. *Bracteæ numerosæ adpressæ lanceolatae vel lineares. Capitula plerumque breviter pedunculata semiglobosa dense multiflora. Receptaculum villosum vel lanatum. Calyx campanulatus rectus apice lanato-villosissimus, dentibus brevibus rectis.*

Pedunculi capitulo plus duplo longiores . . . 41. H. LEUCOCEPHALA.

Pedunculi capitulo breviores vel vix longiores.

Suffrutices vel frutices tomento brevi sericeo incani.

Folia integerrima.

Folia oblongo-linearia plana . . . 43. H. SELLOI.

Folia obovata margine undulata . . . 42. H. PASSERINÆ.

Folia apice serrata.

Folia linearia . . . 44. H. ANGUSTIFOLIA.

Folia oblongo-lanceolata . . . 45. H. SAXATILIS.

Herba lana longa laxa subsericea vestita . . . 46. H. HILARII.

Herbæ suffruticesve villosæ plus minusve rufescentes.

Folia basi in petiolum brevem angustata.

Herbasuberecta. Folia oblongo-lanceolata 47. H. VELUTINA.

Suffrutex procumbens. Folia oblongo-ovata . . . 48. H. ORIGANOIDES.

Folia sessilia basi rotundata vel cordata.

Folia ovata vel ovato-oblonga.

Bracteæ et dentes calycini acuti vel breviter subulati.

Folia basi rotundata.

Folia supra scabra subtus pubescentia . . . 49. H. DICTYODEA.

Folia utrinque molliter lana rufa velutina . . . 50. H. ADAMANTIUM.

Folia basi cordata.

Rami pilis longis patentibus dense villosi. Folia ovali-elliptica . . . 54. H. GOYAVENSIS.

Rami breviter rufo-villosi.

Folia ovata basi latiora.

Folia erecta vel patentia vix 3-4 lin. longa.

Herba procumbens.

Bracteæ capitulum æquantur. . . 51. H. CÆRULEA.

Rami erecti virgati.

Folia erecta. Bracteæ capitulolongiores 53. H. GRATIOLÆFOLIA.

Folia reflexa semipollicaria et ultra . . . 52. H. ALPESTRIS.

Bracteæ et dentes calycini longe subulati.

Bracteæ et calyces breviter tomentosi.

Folia parva erecta . . . 53. H. GRATIOLÆFOLIA.

Folia plusquam semipollicaria patentia . . . 55. H. OVATA.

Bracteæ villosæ. Calyces villosissimi . . . 56. H. CRENATA.

Folia oblongo-linearia vel lanceolata.

Dentes calycini subulati tubo multo longiores . . . 58. H. ASTEROIDES.

Dentes calycini abbreviati . . . 57. H. TURNERÆFOLIA.

SECT. VIII. OOCEPHALUS. *Bracteæ numerosæ adpressæ ovatæ. Capitula pedunculata ovoidea densa pauciflora. Calyx campanulatus rectus, dentibus subulatis mollissime villosis tubo longioribus.*

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|---|---------------------|
| Planta incana brevissime tomentosa . . . | 59. H. HALIMIFOLIA. |
| Planta rufo-villosa vel pubescens. | |
| Folia subsessilia plana pubescentia . . . | 61. H. LACUNOSA. |
| Folia cordato-amplexicaulia margine revoluta villosissima . . . | 60. H. CRASSIFOLIA. |

SECT. IX. TRICHOSPHERIA. *Bracteæ numerosæ adpressæ subulatae. Capitula pedunculata globosa dense multiflora. Calyx campanulatus rectus, dentibus filiformibus molliter plumosis tubo multoties longioribus.*

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|---|----------------------|
| Folia lato-ovata vel rotundata. | |
| Folia subtus tenuiter albo-tomentosa . . . | 67. H. MULTIFLORA. |
| Folia crassa subtus rufescentia . . . | 66. H. BRACHYPHYLLA. |
| Folia ovato-oblonga. | |
| Folia subtus tenuiter albo-tomentosa . . . | 64. H. MARTII. |
| Folia crassa dense tomentosa subrufescentia . . . | 65. H. ERIOPHYLLA. |
| Folia obovato-cuneata . . . | 63. H. SPIRÆÆFOLIA. |
| Folia oblongo-lanceolata . . . | 62. H. CRINITA. |

SECT. X. XANTHIOPHÆA. *Bracteæ numerosæ adpressæ subulatæ vel lineares. Capitula longe pedunculata globosa dense multiflora. Calyx turbinato-campanulatus, fructifer medio vel basi inflatus, ore contracto, dentibus rigidis subulatis.*

- | | |
|---|---------------------|
| Folia subsessilia basi rotundato-truncata . . . | 68. H. SIDERITIDIS. |
| Folia petiolata basi cuneato-rotundata . . . | 70. H. LAGENARIA. |
| Folia petiolata basi profunde cordata . . . | 69. H. LOBATA. |

SECT. XI. CEPHALOHYPTIS. *Bracteæ numerosæ adpressæ. Capitula pedunculata vel rarius subsessilia semiglobosa vel demum globosa dense multiflora. Receptaculum nudum vel rarius lanatum. Calyx campanulatus vel tubulosus rectus, glaber vel villosus, nec lanatus.*

1. GNIDIÆFOLIÆ. *Folia parva integerrima basi cordata margine revoluta. Capitula fructifera globosa villosa. Bracteæ ovatæ vel lanceolatæ.*

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|------------------------------------|---------------------|
| Folia lato-ovata obtusa . . . | 72. H. DITASSOIDES. |
| Folia ovato-lanceolata acuta . . . | 71. H. IMBRICATA. |

2. LAVANDULACEÆ. *Folia basi angustata integerrima apice subdentata. Capitula fructifera subglobosa villosa.*

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|---|-----------------------|
| Folia linearia. | |
| Bracteæ exteriores lanceolatæ. Dentes calycini tubum subæquantes . . . | 73. H. LINARIOIDES. |
| Bracteæ exteriores lineares. Dentes calycini tubo dimidio breviores . . . | 74. H. STRICTISSIMA. |
| Folia oblonga vel oblongo-lanceolata . . . | 75. H. DENSIFOLIA. |
| Folia ovata . . . | 76. H. VERONICÆFOLIA. |

3. PEDUNCULOSÆ. *Capitula longe pedunculata semiglobosa. Bracteæ subulatæ. Calyces glabri vel pubescentes, dentibus subulatis.*

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|---|------------------------|
| Folia rugosa utrinque villosa basi rotundato-cuneata . . . | 78. H. MULTIBRACTEATA. |
| Folia supra scabrida subtus rubiginosa basi angustata . . . | 77. H. TETRAGONA. |

4. LATIBRACTEATÆ. *Capitula semiglobosa. Bracteæ lato-ovatæ. Calyces glabri vel pubescentes, dentibus subulatis.*

- Caulis erectus. Folia longe petiolata . . . 79. H. PETIOLARIS.
 Caulis adscendens. Folia subsessilia. Bracteæ foliaceæ . . . 80. H. LANTANÆFOLIA.
 Caules procumbentes. Folia petiolata. Bracteæ membranaceæ . . . 81. H. ATRORUBENS.

5. MARRUBIASTRÆ. *Capitula demum globosa. Bracteæ lineares. Calyces campanulati basi membranacei glabri superne sæpius villosi, dentibus lanceolato-subulatis. Folia plus minusve sinuata.*

- Folia vix sinuata dense villosa. Receptaculum villosum.
 Caulis et folia pilis mollibus dense villosissima 82. H. MOLLIS.
 Caulis pubescens. Folia utrinque rigide villosa 83. H. MARRUBIASTRUM.
 Folia sinuato-lobata subhastata. Receptaculum subnudum.
 Bracteæ capitulum æquantes. Calyces glaberrimi, dentibus stellato-patentibus . . . 84. H. ANGULOSA.
 Bracteæ capitulo longiores. Calyces apice subvillosi, dentibus erectiusculis . . . 85. H. SINUATA.

6. GENUINÆ. *Capitula demum globosa. Bracteæ lanceolatæ. Calyces tubulosi vel campanulati, post anthesin sæpius elongati subglabri, dentibus subulatis glabris.*

Dentes calycini æquales.

- Calyces campanulati, dentibus tubum æquantibus.
 Folia sessilia basi cordata . . . 87. H. INVOLUCRATA.
 Folia petiolata basi angustata.
 Capitula ad apices ramorum dense corymbosa . . . 86. H. LAPPACEA.
 Capitula axillaria, verticillastris inter se distantibus.
 Pedunculi vix diametro capituli longiores . . . 92. H. BREVIPES.
 Pedunculi diametro capituli duplo vel plus longiores.
 Folia ovata . . . 88. H. LAPPULACEA.
 Folia oblongo-lanceolata . . . 95. H. LONGIFOLIA.
 Calyces demum elongati tubulosi, dentibus tubo longioribus.
 Pedunculi diametro capituli breviores vel parum longiores.
 Folia ovata . . . 93. H. GAUDICHAUDI.
 Folia lanceolata.
 Herba dense rufo-villosa . . . 98. H. HOMALOPHYLLA.
 Herba fere glabra.
 Calyx apice truncatus, dentibus subulatis . . . 94. H. LANCEOLATA.
 Calycis dentes basi lanceolati . . . 96. H. LANCEÆFOLIA.
 Pedunculi diametro capituli duplo longiores vel ultra.
 Folia lato-ovata crenata . . . 90. H. INAMÆNA.
 Folia oblongo-ovata inciso-serrata.
 Bracteæ capitulo fructifero breviores 91. H. CAPITATA.
 Bracteæ capitulo fructifero longiores 89. H. RAMOSA.
 Calycis dentes superiores latiores . . . 97. H. LACUSTRIS.
7. BRACHYDONTES. *Capitula semiglobosa demum vix globosa. Bracteæ ovatæ vel lanceolatæ. Calyces campanulati, dentibus abbreviatis ovatis obtusis.*
 Calyx fructifer lageniformis elongatus . . . 98. H. HOMALOPHYLLA.
 Calyx fructifer brevis campanulatus.
 Folia sessilia. Capitula longe pedunculata . . . 100. H. PARKERI.
 Folia petiolata. Capitula breviter pedunculata . . . 99. H. OBTUSIFLORA.

8. XYLODONTES. *Capitula semiglobosa. Bracteæ lanceolatae vel lineares. Calyces campanulati, dentibus basi lanceolatis subulatis rigidis glabris plerumque subspinosi.*

Folia sessilia vel vix petiolata lato-ovata vel rotundata basi subcordata.

Capitula omnia vel superiora subsessilia.

Folia breviter petiolata. Capitula inferiora pedunculata

105. H. FERRUGINOSA.

Folia sessilia.

Rami longe sericeo-pilosi

113. H. COMPLICATA.

Rami pubescentes vel rufo-villosi.

Pubescens. Folia ovata

112. H. NIGRESCENS.

Rufo-villosa. Folia rotundata

111. H. ORBICULATA.

Capitula pedunculata.

Folia subtus rufo-villosa.

Bracteæ exteriores dentatae

110. H. VILLOSA.

Bracteæ integerrimæ.

Folia sessilia rotundata

108. H. CORDATA.

Folia breviter petiolata lato-ovata

109. H. REMOTA.

Folia subtus glabra vel ad nervos pubescentia.

Folia crassa crenata

107. H. PROTÆOIDES.

Folia tenuia inæqualiter serrata

122. H. CÆSPITOSA.

Folia petiolata ovata vel oblonga basi cuneata vel angustata.

Capitula superiora sessilia.

Folia dense rufo-villosa

104. H. AFFINIS.

Folia rubiginoso-pubescentia.

Rami dense rufo-villosi

103. H. LUTESCENS.

Rami rubiginoso-tomentosi

102. H. RUBIGINOSA.

Capitula pedunculata.

Folia oblongo-elliptica vel lanceolata.

Folia oblongo-lanceolata viridia

101. H. RADIATA.

Folia oblongo-elliptica rufo-tomentosa.

Pedunculi folio florali longiores

119. H. FERRUGINEA.

Pedunculi folio florali breviores

117. H. CONFERTA.

Folia ovata.

Herba humilis adscendens subsimplex

118. H. ALUTACEA.

Suffrutices vel frutices erecti ramosi.

Folia utrinque glabra supra lucida.

Folia floralia capitulum æquantia

106. H. LUCIDA.

Capitula folium florale super-

antia

120. H. XANTHIOCEPHALA.

Folia subtus vel utrinque rufo-pubescentia vel villosa.

Folia vix semipollicem longa.

Folia lato-ovata. Dentes

calycini latitudine tubi

longiores

114. H. ROTUNDIFOLIA.

Folia ovata. Dentes ca-

lycini latitudine tubi

breviores

115. H. MONTICOLA.

Folia ultra pollicem longa.

Folia lato-ovata subrotunda

brevissime petiolata

109. H. REMOTA.

Folia ovato-oblonga.

Capitula secus ramos

axillaria

116. H. TRICEPHALA.

Capitula ad apices ra-

morum subpaniculata

121. H. ANOMALA.

SECT. XII. POLYDESMIA. *Bracteæ numerosæ adpressæ ovatae vel lanceolatae. Capitula subsessilia vel pedunculata, racemoso-pani-*

culata. Calyx fructifer nunc ore elongato truncato dentibus setaceis strictis vel obsoletis, nunc tubuloso-campanulatus dentibus lanceolatis.

Dentes calycini obsoleti vel inæquales tubi latitudine breviores.

Folia petiolata rugosa tomentosa.

Folia basi truncato-cordata.

Folia rugosissima utrinque villosa . 123. H. VESTITA.

Folia rugosa utrinque tomentosa . 125. H. ALTHÆÆFOLIA.

Folia basi cuneata supra scabra subtus tomentosa . 124. H. DUPLICATODENTATA.

Folia sessilia vel subsessilia parva rigida.

Folia basi rotundata.

Folia subrotunda viridia . 136. H. SUBROTUNDA.

Folia ovalia rufescentia . 137. H. LYTHROIDES.

Folia basi in petiolum brevem angustata . 138. H. PARVIFOLIA.

Dentes calycini lanceolati vel subulati latitudinem tubi æquantes vel superantes.

Capitula sessilia in verticillastro agglomerata indistincta.

Folia rugosa utrinque tomentosa vel villosa.

Folia acuminata . 126. H. BARBATA.

Folia acuta vel obtusa nec acuminata . 127. H. OBVALLATA.

Folia subcoriacea supra glabriuscula.

Folia ovato-oblonga obtusiuscula subtus tomentosa.

Folia subsessilia . 128. H. CARPINIFOLIA.

Folia petiolata . 129. H. AQUATICA.

Folia ovato-lanceolata glabra supra vel utrinque scabra.

Verticillastri secundi . 131. H. VIOLACEA.

Verticillastri æquales . 130. H. ARIDA.

Capitula distincta subsessilia vel pedunculata.

Folia sessilia vel subsessilia.

Folia utrinque glabra vel scabra.

Folia parva ovalia . 137. H. LYTHROIDES.

Folia ovato-lanceolata.

Verticillastri secundi . 131. H. VIOLACEA.

Verticillastri æquales . 130. H. ARIDA.

Folia mollia pubescentia vel villosa . 132. H. GLOMERATA.

Folia petiolata.

Dentes calycini lanceolati.

Racemi breves densi. Folia utrinque tomentosa . 135. H. PETRÆA.

Racemi elongati laxi. Folia supra villosa subtus subcanescentia . 133. H. PAUCIFLORA.

Racemi laxi foliosi. Folia utrinque viridia viscoso-pubescentia . 134. H. FOLIOSA.

Calyx truncatus, dentibus setaceis strictis.

Calycis fructiferi tubus bracteis brevior.

Bracteæ lato-ovatae.

Capitula depressa subglobosa.

Caulis anguli scabri. Folia supra scabro-pubescentia . 140. H. MURICATA.

Caulis anguli læves. Folia tenuia glabra . 141. H. INODORA.

Capitula ovoidea . 143. H. POLYSTACHYA.

Bracteæ ovato-lanceolatae vel lanceolatae.

Racemus purpurascens . 139. H. RUBICUNDA.

Racemus viridis rufescens vel canescens.

- Folia utrinque canescentia . 144. H. CANESCENS.
 Folia supra viridia.
 Dentes calycini tubo longiores 150. H. DUBIA.
 Dentes calycini tubo breviores.
 Capitula 3 lin. et ultra diametro 142. H. SYLVULARUM.
 Capitula vix 1 lin. diametro 145. H. MICRANTHA.
 Calycis fructiferi tubus bracteas superans.
 Calyx fructifer demum 6 lin. longus 147. H. ROSTRATA.
 Calyx fructifer vix 3 lin. longus.
 Calyx bracteis duplo longior, denti-
 bus tubo multo brevioribus.
 Caulis anguli scabri . 146. H. SPICATA.
 Caulis lævis bifariam pubescens 148. H. TENUIFLORA.
 Calycis tubus bracteis vix longior,
 dentibus tubo dimidio brevio-
 ribus . . . 149. H. EXPANSA.

SECT. XIII. MESOSPHERIA. *Bracteæ minutæ vel subulatæ laxæ. Capitula laxè pauciflora pedunculata paniculata. Calyx oblique campanulatus, ore truncato, dentibus setaceis strictis, fauce intus plus minusve pilosa.*

- Bracteæ laxæ tubum calycis subæquantes.
 Caulis erectus 2-pedalis et ultra, ramis her-
 baceis.
 Bracteæ lanceolatæ . . . 151. H. PLECTRANTHOIDES.
 Bracteæ subulatæ . . . 163. H. RACEMULOSA.
 Caulis humilis basi procumbens $\frac{1}{2}$ -1-pedalis.
 Folia basi subcordata. Herba valde pilosa 152. H. PUMILA.
 Folia basi cuneata rotundata vel truncata 153. H. COMMUNIS.
 Caulis fruticosus divaricato-ramosus . 154. H. FRUTICOSA.
 Bracteæ minutæ setacæ.
 Pedunculus capitulo fructifero brevior vel vix
 longior.
 Suffrutex ramosissimus, ramis rufo-villosis 155. H. MELISSOIDES.
 Herba elata caule patentim piloso . 157. H. SUAVEOLENS.
 Pedunculus capitulo duplo vel pluries longior.
 Folia leviter serrulata. Calyx pilosissimus 156. H. PILOSA.
 Folia irregulariter serrata vel sinuata.
 Planta tota viscida . . . 158. H. GRAVEOLENS.
 Planta non viscosa.
 Folia basi rotundata vel cordata.
 Folia subtus albo-tomentosa.
 Panicula laxissima subnuda 160. H. POLYANTHA.
 Folia subtus pallida. Panicula
 foliosa . . . 159. H. UMBROSA.
 Folia basi angustata vel cuneata.
 Folia subtus pubescentia . 162. H. URTICOIDES.
 Folia subtus cano-tomentosa . 161. H. LILACINA.
 Species non satis nota . . . 164. H. LAMIIFOLIA.

SECT. XIV. PECTINARIA. *Bracteæ laxæ setacæ. Cymæ fruc-
 tiferæ elongatæ pectinatæ paniculatæ. Calyx fructifer tubulosus
 truncatus, dentibus setaceis strictis, fauce intus villosa.*

- Caulis et folia dense rufo-tomentosa . . . 163. H. RACEMULOSA.
 Caulis glaber vel pubescens. Folia glabra vel
 subtus cano-tomentosa . . . 165. H. PECTINATA.

SECT. XV. MINTHIDIUM. *Bracteæ minutæ vel laxæ setacæ.
 Flores in verticillastos axillares sessiles vel breviter pedicellati.
 Calyx fauce intus nuda.*

Verticillastri dense globosi internodio breviores.

Dentes calycini subspinosi demum stellato-patentes.

Folia basi cordata.

Dentes calycini tubo breviores . . . 171. H. SPINULOSA.

Dentes calycini tubo duplo longiores . . . 170. H. MOCINIANA.

Folia basi rotundata.

Folia sessilia . . . 169. H. PUBESCENS.

Folia petiolata . . . 172. H. STELLULATA.

Dentes calycini erecti non spinosi.

Calyces fructiferi parum aucti, dentibus subulatis.

Fruticulus dense lanatus . . . 168. H. ALBIDA.

Herba pubescens . . . 167. H. PULEGIOIDES.

Calyces fructiferi valde aucti, dentibus abbreviatis acutis *Vide* ⁽¹⁾.

Verticillastri laxi pauciflori vel ad apices ramorum dense approximati.

⁽¹⁾Folia lanceolata vel linearia.

Folia linearia. Anguli caulis asperi . . . 173. H. SCOPARIA.

Folia lanceolata. Anguli caulis breves . . . 174. H. VERTICILLATA.

Folia ovata.

Calyx vesiculoso-inflatus . . . 179. H. VESICULOSA.

Calyx fructifer ovato-tubulosus.

Folia acuta.

Folia villosa. Panicula fastigiata.

Calyx glaber . . . 176. H. FASTIGIATA.

Calyx tomentosus . . . 177. H. ERIOCALYX.

Folia glabra vel pubescentia. Panicula divaricato-ramosa.

Folia obtusissima . . . 175. H. FASCICULATA.

Dentes calycini ovati subpatentes . . . 178. H. VEPRETORUM.

Dentes calycini subulati erecti rigidi.

Cymæ multifloræ densæ . . . 180. H. CALIDA.

Cymæ paucifloræ laxæ . . . 183. H. RHABDOCALYX.

SECT. XVI. BUDDLEIODES. *Bracteæ minutæ. Cymæ pedunculatæ subcapitatæ multifloræ paniculatæ. Calyx tubulosus, dentibus abbreviatis, fauce intus nuda.*

Folia supra lucida subtus cano-tomentosa . . . 182. H. TAFALLÆ.

Folia supra aspera subtus rufescentia . . . 181. H. MEMBRANACEA.

SECT. XVII. UMBELLARIA. *Bracteæ minutæ. Cymæ pedunculatæ umbellæformes plurifloræ axillares. Calyx tubulosus, dentibus lanceolatis subulatisve, fauce intus nuda.*

Pedicelli calyce vix breviores.

Folia et calyces viridia . . . 183. H. RHABDOCALYX.

Folia utrinque et calyces albo-lanata . . . 184. H. TOMENTOSA.

SECT. XVIII. SIAGONARRHEN. *Bracteæ setaceæ minutæ vel laxæ. Cymæ regulariter dichotomæ racemosæ vel rarius diffformes in paniculam elongatam coarctatam dispositæ. Calyx tubuloso-campulatus incurvus ore obliquo, dentibus lanceolatis, fauce intus nuda.*

Cymæ regulares dichotomæ laxæ multifloræ.

Folia supra nitida glabra.

Folia obtusa subtus cano-tomentosa . . . 185. H. LEUCOPHYLLA.

Folia acuta utrinque viridia . . . 186. H. LAURIFOLIA.

- Folia supra albo-tomentosa vel sordide scabra.
 Folia ovali-elliptica acuta vel obtusiuscula.
 Calyces albo-tomentosi . . . 187. H. SCABRA.
 Calyces nigrescentes glanduloso-pubescentes . . . 190. H. ALTISSIMA.
 Folia ovato-rotundata obtusissima submarginata mucronulata.
 Cymæ densæ multifloræ . . . 189. H. SORDIDA.
 Cymæ laxæ paucifloræ . . . 188. H. CANA.
 Cymæ difformes in paniculam elongatam coarctatam dispositæ.
 Folia crassissima lato-ovata . . . 191. H. LATIFOLIA.
 Folia oblongo-elliptica . . . 192. H. SALVIÆFOLIA.

SECT. XIX. HYPENIA. *Bracteæ minutæ vel laxæ setaceæ. Flores subsolitarii in paniculam laxè ramosissimam vel rarius coarctatam, glaberrimam glaucam dispositi. Calyx tubuloso-campulatus subæqualis, dentibus lanceolatis acutis vel rarius obtusis, fauce intus nuda.*

Corollæ tubus dentibus calycinis brevior vel vix longior.

Panicula coarctata.

Folia ovato-oblonga vel lanceolata subtus albo-tomentosa.

Panicula densa oblonga . . . 193. H. DENSIFLORA.

Panicula elongata racemiformis . . . 195. H. MELOCHIOIDES.

Folia ovato-rotundata utrinque viridia . . . 194. H. BRACHYSTACHYS.

Panicula laxissima divaricata.

Folia sessilia vel subsessilia.

Folia rotundata basi cordata. Dentes calycini lanceolati . . . 196. H. PRUINOSA.

Folia ovata basi rotundata. Dentes calycini brevissimi . . . 197. H. SIMPLEX.

Folia petiolata.

Folia ampla sinuato-lobata basi profunde cordata . . . 199. H. CALOPHYLLA.

Folia parva basi rotundato-cuneata . . . 198. H. SALZMANNI.

Corollæ tubus calyce duplo vel plus longior.

Panicula coarctata . . . 201. H. CRISPATA.

Panicula laxè divaricata.

Bracteæ ovatæ vel ovato-lanceolatæ.

Folia utrinque viridia subglabra . . . 206. H. MACRANTHA.

Folia utrinque villosa subtus albescentia.

Calyx 7-8 lin. longus . . . 205. H. CALYCINA.

Calyx circiter 4 lin. longus . . . 204. H. LAXIFLORA.

Bracteæ setaceæ.

Folia sinuato-lobata basi profunde cordata . . . 200. H. VITIFOLIA.

Folia basi rotundata subcordata vel angustata.

Dentes calycini lati obtusi . . . 209. H. GLAUCA.

Dentes calycini lanceolati acuti.

Folia utrinque molliter villosa.

Folia ovato-lanceolata vel oblonga . . . 202. H. COCCINEA.

Folia lato-ovata . . . 203. H. PANICULATA.

Folia utrinque viridia glabra vel tomentosa.

Corollæ tubus calyce duplo longior . . . 208. H. RETICULATA.

Corollæ tubus calyce plus triplo longior . . . 207. H. LONGIFLORA.

SECTIO I. GYMNEIA.

Flores sessiles. Verticillastri multiflori subglobosi in spicam densam vel racemum interruptum dispositi. Bracteæ numerosæ adpressæ subulatæ. Calyx fructifer submembranaceus apice recurvus, dentibus subulatis. Caulis superne denudatus, foliis floralibus minutis.

1. *H. VIRGATA* (Benth. in Herb. Mus. Berol. MSS.), herbacea, ramis elongatis strictis subnudis, foliis parvis remotis subsessilibus ovato-oblongis rugosis villosis, verticillastris multifloris in spicam brevem terminalem congestis, bracteis parvis subulatis, calycis pubescentis tubulosi fructiferi recurvi ore obliquo membranaceo reflexo, dentibus subulatis glabris tubo subæqualibus

Hab. in Brasilia: ad Ponte d'Erva provinciæ Minas Geraes *Pohl!* ad rivulos prope pagum Coração de Jesus desertæ ejusdem provinciæ *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Caules e basi crassa lignosa plures, herbacei, erecti, 1-2-pedales, glabri vel ad basin pubescentes, tetragoni, sulcati. Folia paucissima, vix 4-6 lineas longa, vel interdum infima ovata subpollicaria, omnia rugosissima, hispida, floralia minuta bracteæformia. Spica densa, 1-1½-pollicaris, dentibus calycinis reflexo-crinita. Calyces sessiles, membranacei, striati, fructiferi 3-4 lin. longi, dentibus subulato-setaceis 2-3 lin. longis. Corolla brevis, "alba, labio superiore punctis purpureis notato. Filamenta hinc pubescentia" (*St. Hil.*). Achenia oblonga, subcompressa, pallida, lævia.

2. *H. INTERRUPTA* (*Pohl Ic. ined.*), herbacea elata viscido-pubescent, foliis petiolatis oblongo-ellipticis eroso-dentatis rugosis utrinque viridibus pubescentibus, verticillastris multifloris in racemum interruptum terminalem subramosum dispositis, bracteis lineari-subulatis acutis calycem æquantibus, calycis pubescentis tubulosi fructiferi recurvi ore obliquo membranaceo, dentibus subulatis tubum subæquantibus.

Hab. in Brasilia: ad Santa Cruz provinciæ Goyaz *Pohl!* in pascuis prope Fazenda de Francisco Jose de Matos provinciæ occidentalis Minas Geraes *A. de St. Hilaire!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et St. Hil.*)

Herba tota viscido-pubescent vel villosa. Caules 2-3-pedales, stricti, subsimplices, basi foliosi, medio subnudi, superne floriferi subpaniculato-ramosi. Folia inferiora longiuscule petiolata, 1½-4-pollicaria, media minuta subsessilia, floralia subnulla. Bracteæ numerosæ, adpressæ. Racemus nunc simplex pedalis et ultra, nunc brevior, ramosus. Verticillastri densi globosi, infimi pollicem remoti, supremi in spicam approximati. Calyx fructifer elongatus, striatus, submembranaceus, viscido-pubescent, dentes glabriusculi, acutissimi, inæquales, demum stellato-divaricati. Corolla calyce brevior, extus pubescens, "flavescens, labio superiore purpureo-maculato. Stamina inferiorum filamenta glabra, superiorum hinc pubescentia" (*St. Hil.*). Achenia oblonga, subcompressa, pallida, lævia.

3. *H. PLATANIFOLIA* (*Mart. MSS.*), herbacea perennis, caule basi repente radicante, ramis adscendentibus basi floccoso-lanatis superne denudatis, foliis breviter petiolatis lato-ovatis duplicato-crenatis et angulato-lobatis basi subcordatis supra pubescentibus subtus tomento albo lanatis, verticillastris dense multifloris globosis remotis in racemum terminalem dispositis, bracteis subulatis adpressis calycem

floriferum æquantibus, calycis pubescentis fructiferi recurvi membranacei ore obliquo, dentibus subulatis.

Hab. in Brasilia: *Swainson!* in campis ad Joazeiro provinciæ Bahiensis *Martius!* (v. s. sp. in herb. *Hooker et Mus. Reg. Monac.*)

Caules basi perennes, duri, sublignosi, extremitate ramisque adscendentibus vel erectis 2-pedalibus tetragonis. Folia fere *Populi albi*, 2-pollicaria, rugosiuscula, subtus præsertim in venis uti petioli breves et ramorum pars inferior lana alba molli floccosa vestita, superiora remota parva subsessilia, floralia minuta. Verticillastri pauci, longe remoti, fructiferi fere pollicem diametro. Bracteæ per anthesin adpressæ, post anthesin reflexæ lanatæ. Calyx florifer albo-tomentosus, fructifer membranaceus pubescens basi subinflatus adscendens, apice parum recurvus, intus glaber, dentibus tubum fere æquantibus purpurascentibus pubescentibus, superioribus longioribus. Corolla dentibus calycinis subbrevior, "alba, laciniis superioribus fusco-maculatis, infima subrosea" (*Mart.*). Filamenta glabra. Achenia ovoideo-compressiuscula, nitida, olivacea. Species calyce *H. virgatæ* affinis, inflorescentia *H. nudicauli* vel *H. pulegioidi*.

SECTIO II. SPICARIA.

Flores sessiles. Verticillastri multiflori in spicam densam vel vix basi interruptam dispositi. Bracteæ numerosæ adpressæ lineari-subulatæ. Calyx fructifer rectus, dentibus subulatis. Herbæ foliosæ.

4. *H. SPICIGERA* (Lam. Dict. 3. 185.), herbacea, caule elato erecto ramoso glabriusculo, angulis asperis, foliis petiolatis ovatis acuminatis serratis basi cuneatis pubescentibus v. glabriusculis subtus pallidis, floralibus bracteæformibus, verticillastris multifloris in spicas densas terminales approximatis, bracteis linearibus calyces æquantibus, calycis pubescentis recti ore æquali, dentibus lanceolato-subulatis strictis rigidis.

Nepeta maxima, &c. *Sloane Hist. Jam.* 1. 173. t. 108. f. 1.

Nepeta foliis serratis. *Plum. Ic.* 162.

Hyptis Madagascariensis. *Bojer MSS. an Sweet Hort. Bot. ed.* 2. 594?

Hab. in America et Africa tropica: in ins. Antillis *herb. DC.!* in Brasilia *Sello!* et in Peruvia *Pavon!* in Senegambia Africæ tropicæ *Le Prieur et Perrottet!* in Madagascaria *Bojer!* et in ins. Manilla *Chamisso!* *Perrottet!* (h. s. sp.)

Annua videtur. Caulis 2-3-pedalis, crassus, obtuse tetragonus, glaber vel tenuiter pubescens, angulis aculeis minutis asperatis. Folia longiuscule petiolata, lamina 1½-2-pollicaris, apice acuminata et acuta, margine duplicato-serrata, supra sæpius tenuiter pubescens, subtus venosa, venis pilis brevibus pubescentibus. Spicæ in apicibus caulis et ramulorum cylindricæ, circiter pollicem longæ, 3 lin. crassæ. Verticillastri inferiores sæpe subdistincti. Folia floralia uti bracteæ lineares acutæ integerrimæ, pilis brevibus ciliato-pubescentes, calyce paullo longiores. Calyces sessiles, fauce intus nuda, dentibus villosis tubo subæqualibus. Corolla parva, alba, vix dentibus calycinis longior.

5. *H. LOPHANTHA* (Mart. MSS.), herbacea, caule humili erecto ramoso glabriusculo, angulis vix asperis, foliis petiolatis oblongis obtusis crenato-serratis basi angustatis utrinque glabriusculis subtus pallidis, floralibus bracteæformibus, verticillastris 6-10-floris in spicas terminales interruptas subapproximatis, bracteis linearibus calyce subbrevioribus, calycis pubescentis recti ore æquali truncato, dentibus subulatis strictis rigidis.

Hab. in Brasilia: in herbidis pascuis in Serro Frio provinciæ Minas Geraes *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Ab affini *H. spicigera* differt caule semipedali vel vix pedali basi ramosissimo, foliis parvis obtusis, et spicis interruptis calycibusque majoribus.

6.? *H. STRICTA* (Benth. in Herb. Mus. Berol. MSS.), herbacea, caule erecto scabro-pubescente, foliis breviter petiolatis oblongo-lanceolatis obtusis grosse serratis basi angustatis supra villosiusculis subtus cano-tomentosis, racemo subramoso, verticillastris multifloris supremis interrupte spicatis inferioribus in spiculas breves dispositis, bracteis subulatis calyce brevioribus, calycis glabriusculi tubulosi recti ore æquali truncato, dentibus subulatis.

Hab. in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol.)

Radix (vel caulis pars inferior?) nodosa. Caulis 2-3-pedalis, subsimplex, parce foliosus, tetragonus; anguli pilis brevissimis rigidis scabridi, facies glabræ vel pilis raris pubescentes. Folia inferiora 1½-2½-pollicaria, supra rugosa, pilis brevibus rigidis villosa et scabra, subtus tomento albido dense lanata, margine sæpe subincisa; superiora parva, floralia minuta. Racemus elongatus, in parte superiore ex verticillastris globosis approximatis compositus, in parte inferiore ex spiculis cylindricis remotis basi interruptis 1-1½-pollicaribus. Calycis faux intus nuda, dentes tubo breviores. Achenia oblonga, obtusa, lævia. Species inter *Spicarias*, *Apodotes*, et *Polydesmias*, quasi media.

SECTIO III. APODOTES.

Flores sessiles. Verticillastri e capitulis binis sessilibus sed sæpe distinctis compositi, axillares, remoti vel rarius in racemum terminalem interruptum dispositi. Bracteæ subulatæ vel lanceolatæ. Calyx fructiferrectus, dentibus subulatis vel lanceolato-subulatis rigidiusculis. Herbæ nudicaules vel foliosæ.

7. *H. NUDICAULIS* (Benth. in Herb. Mus. Berol. MSS.), herbacea, caulibus simplicibus erectis subnudis sericeo-lanatis, foliis subradicalibus ovalibus obtusis crenatis rugosis hispidis, racemo simplici, verticillastris globosis multifloris supremis approximatis, bracteis subulatis flores æquantibus, calycis pubescentis tubulosi dentibus abbreviatis acutis.

Hab. in Brasilia: in campis et ad vias prope Villa de Campanha provinciæ Minas Geraes *Martius!* in campis herbidis meridionalibus ejusdem provinciæ *A. de St. Hilaire!* ad Macacou in Serra Urruhù provinciæ Goyaz *Pohl!* in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. Mus. Reg. Monac. et Mus. Cæs. Reg. Bras. Vind.)

Caules e basi crasso lignoso rufo-lanato pauci, 2-3-pedales et ultra, simplicissimi. Folia omnia ad basin approximata, 2-3-pollicaria, basi angustata, supra pilis longis rigidis dense hispida, subtus nervosa, nervis hispidis. Nodi superiores aphylli. Verticillastri semipollicem diametro, floribus numerosissimis, inferiores pollicem et ultra distantes, superiores in spica terminali approximati. Folia floralia bracteis conformia. Calyces fuscescentes, demum glabrati, fauce intus nuda. Corolla parva, extus vix pubescens, tubo calycem subæquante, "sordide purpurea. Stamina glabra vel superiorum filamenta intus pubescentia" (*St. Hil.*). Achenia ovato-oblonga, pallida, lævia.

8. *H. SERICEA*, caulibus subsimplicibus sericeo-lanatis superne subaphyllis, foliis subsessilibus ovatis obtusis subintegerrimis crassis

nervosis utrinque sericeo-lanatis, capitulis globosis dense multifloris breviter pedunculatis racemosis, bracteis subulatis capitulum æquantibus, calycis tubulosi sericeo-lanati dentibus subulatis demum subpatentibus.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto.*)

Caules e basi perenni plures, herbacei, erecti, 2-pedales, uti tota planta lana laxa alba subsericea dense vestiti. Folia versus medium caulis approximata, 2-pollicaria, vix crenata, basi rotundato-cuneata, in caulis parte superiore pauca parva remota, floralia pedunculo breviora. Verticillastri 5-6, remoti, racemum terminalem formantes. Capitula suprema subsessilia, inferiora breviter pedunculata, omnia semiglobosa, demum globosa, semipollicem diametro. Bracteæ et calyces apice nigrescentes. Corolla vix calycem excedens. Genitalia exserta. Achenia matura non vidi, juniora reticulato-rugosa videntur.—Species inter *H. hirsutam* et *H. nudicaulem* vel *H. platanifoliam* quasi media.

9. *H. UNCINATA*, ramis rufo-tomentosis, foliis subsessilibus ovato-oblongis serrato-crenatis basi rotundato-cuneatis supra scabriusculis hispidulis subtus ad nervos rufo-tomentosis, capitulis globosis dense multifloris axillaribus sessilibus, bracteis lanceolatis capitulum æquantibus apice subulatis hamatis, calycis campanulati dentibus rigidis subulato-aristatis hamatis.

Hab. in Peruvia *Ruiz et Pavon!* (*v. s. sp. in herb. Lambert.*)

Folia fere *H. hirsutæ*, floralia omnia conformia. Capitula eis *H. hirsutæ* majora, bracteis dentibusque calycinis revolutis hamosis lappacea. Calycis faux intus rufo-lanata. Corolla dentibus calycinis subbrevior.

10. *H. HIRSUTA* (Humb. et Kunth! Nov. Gen. et Sp. Amer. 2. 318, t. 141), ramis rufo-hirsutis, foliis sessilibus vel breviter petiolatis oblongo-ovatis basi cuneatis angustatis eroso-crenatis rugosis villosis, capitulis sessilibus globosis dense multifloris, bracteis lanceolatis calycem æquantibus, calycis hispidi dentibus lanceolato-subulatis rigidis demum subpatulis, acheniis rugosis.

Hab. in America meridionali: in Novæ Andalusie locis aridis apricis montis Tumiriquiri *Humboldt et Bonpland!* in campis herbidis prope San João del Rey et ad Villa Rica provinciæ Minas Geraes *A. de St. Hilaire!** in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Rami tetragoni, uti folia pilis rufis articulatis dense hirsuti. Folia floralia superiora caulinis multo minora. Capitula sessilia vel brevissime pedunculata, verticillastri racemum interruptum formantibus. Dentes calycini tubo dimidio breviores. Corolla breviter exserta, extus hispida. Genitalia breviter exserta. Achenia reticulato-rugosa, nigra.

SECTIO IV. PLAGIOTIS.

Florum capitula axillaria pedunculata globosa dense multiflora. Bracteæ numerosæ adpressæ ovatæ. Calyx fructifer basi inflatus elongatus, ore incurvo, dentibus brevibus ovatis inæqualibus.

The form of the calyx in this section is very peculiar; but the only two species of which it is as yet composed are so dissimilar in habit,

* The Brazilian specimens are less hairy, but scarcely appear to be specifically distinct.

that it is impossible to consider them as forming a genus distinct from *Hyptis*, with some species of which they both agree in general appearance and in the more essential characters.

11. *H. ODORATA*, caulibus ferrugineo-tomentosis, foliis breviter petiolatis oblongo-ellipticis crenatis basi rotundatis supra scabris subtus tomentosis, capitulis globosis dense multifloris ramosissimo-paniculatis, calycis villosi fructiferi elongati incurvi ore obliquo breviter quinque-dentato.

Hab. in Peruvia *Ruiz et Pavon!* (v. s. sp. in herb. Lambert.)

Frutex habitu *Buddleiæ*. Folia 2-4 pollices longa, supra tuberculis parvis crebris exasperata, floralia minuta. Panicula ampla, ramosissima, ramis gracilibus tomentosis. Capitula florifera vix 2 lin. diametro, floribus dense imbricatis, in quoque capitulo ultra triginta. Calyces tomentoso-hispidi, fructiferi elongati graciles, dentibus brevibus ovatis acutis. Corollæ breviter exsertæ. Achenia oblongo-linearia, lævia.

12. *H. ULIGINOSA* (St. Hil. MSS.), herbacea pusilla glabra, foliis sessilibus lanceolatis acutis serratis basi cordato-amplexicaulibus, pedunculis axillaribus simplicibus, capitulis parvis globosis densis, bracteis ovatis capitulum subæquantibus, calycis fructiferi basi inflati ore obliquo contracto, dentibus brevissimis inæqualibus.

Hab. in Brasilia: in uliginosis sylvaticis prope Itagui provinciæ Sancti Pauli *A. de St. Hilaire!* (h. s. sp. comm. a cl. St. Hil.)

Ex omni parte glaberrima, habitu *Gratiolam* referens. Caulis subsimplex, ascendens, 3-6-pollicaris. Folia semipollicaria vel vix pollicaria, basi subdilatata, membranacea, utrinque viridia. Pedunculi inferiores folio breviores, filiformes. Capitula fructifera vix 2½ lin. diametro, 8-15-flora. Corollæ minutæ. Achenia parva, oblonga, glabra, lævia, pallida. "Flores pallide purpurascens, lobo infimo intensiore. Odor gravis" (St. Hil.).

SECTIO V. CYRTA.

Florum capitula axillaria pedunculata globosa dense multiflora. Bracteæ numerosæ adpressæ subulatæ. Calyx fructifer elongatus apice recurvus, dentibus subulatis.

The first six species of this section come very near the second and third divisions of *Cephalohyptis*; the four latter only differ from *Cyanocephalus* by the ripe calyxes being recurved at their extremity.

13. *H. RECURVATA* (Poit. Ann. Mus. Par. 7. 467, t. 28, f. 2), caule herbaceo suberecto villosa, foliis breviter petiolatis ovatis crenatis basi rotundatis cordatisve rugosis villosis supremis parvis subsessilibus, capitulis globosis dense multifloris longe pedunculatis, receptaculo nudo, bracteis subulatis calyces æquantibus, calycis tubulosi villosi fructiferi recurvi ore truncato, dentibus subulatis.

H. microcephala. Bert.!

β *hirsutior.*

γ *grandifolia.*

Hab. in America æquinoctiali: in Nova Hispania *Moçino et Sessé!* in ins. St. Marthæ *Bertero!* in Cayenna *Richard*, ad Demerara *Parker!* in Brasilia ad Bahiam *Salzmann!* in herbidis ad lacum Teffe provinciæ Rio Negro *Martius!* ad Santa Rita prope Rio Bagagem et

Capão provinciæ Goyaz *Pohl!* ad Cochabamba Peruviæ *Hænke!*
 β in Brasilia ad San João del Rey provinciæ Minas Geraes *Pohl!*
 γ prope Rio de Janeiro *A. de St. Hilaire!* (*h. s. sp.*)

Caules e basi perenni, erectiusculi, ramosi, 4-6-pedales, angulis acutis tetragonis subasperis, basi pilis longis patentibus, superne pilis brevioribus subadpressis villosi. Folia vix pollicaria, floralia parva remota. Pedunculi pollicares et ultra, pubescentes. Capitula fructifera vix 5 lin. diametro. Dentes calycini parum inæquales, purpurascens. Corolla parva, glabra, pallide flavescens. Achenia parva, oblonga, lævia; in var. β caules et folia densius hirsuta; in var. γ folia duplo majora, tenuiora, uti tota planta viridiora.

14. *H. PALUDOSA* (St. Hil. MSS.), herbacea molliter subsericeo villosa, foliis breviter petiolatis ovatis acutis serratis basi rotundato-cuneatis rugosis molliter villosis subtus canescentibus, capitulis globosis dense multifloris, pedunculis capitulo 2-3-plo longioribus, bracteis subulatis adpressis calyces subæquantibus, receptaculo nudo, calycis tubulosi pubescentis fructiferi recurvi ore subdilatato, dentibus lanceolato-subulatis.

Hab. in Brasilia: in paludibus maritimis ad Ponta da Fruta provinciæ Spiritus Sancti *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

A *H. recurvata* differt præcipue foliis rugosis molliter villosis basi potius cuneatis quam cordatis: an revera species distincta? "Flores albi" (*St. Hil.*).

15. *H. MICROPHYLLA* (Pohl Ic. ined.), herbacea cano-pubescent, foliis breviter petiolatis ovatis crenatis basi angustatis rugosis subcano-pubescentibus, capitulis globosis dense multifloris, pedunculis capitulo 2-3-plove longioribus, receptaculo nudo, bracteis subulatis adpressis calyces subæquantibus, calycis tubulosi tomentosi fructiferi recurvi ore subdilatato, dentibus lanceolato-subulatis.

Hab. in Brasilia: ad Villa Paracatù do Principe et ad San João del Rey provinciæ Minas Geraes *Pohl!* in pascuis humidis et locis inundatis prope Taubate provinciæ Sancti Pauli *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Ab affini *H. recurvata* differt canescentia, foliis multo minoribus brevius petiolatis et sæpius subcuneiformibus, pedunculis brevioribus, capitulis minoribus numerosioribus. "Corolla carnea. Filamenta glabra." — (*St. Hil.*) Achenia minuta, oblonga, pallida, lævia.

16. *H. DIVARICATA* (Pohl Ic. ined.), herbacea divaricata, ramis adscendentibus virgatis cano-pubescentibus, foliis lineari-lanceolatis remotis apice serratis basi longe angustatis supra viridibus subtus canescentibus, capitulis globosis dense multifloris pedunculatis, bracteis subulatis adpressis calyces subæquantibus, receptaculo subnudo, calycis tubulosi pubescentis ore demum subobliquo, dentibus subulatis.

Hab. in Brasilia: ad Brijão provinciæ Goyaz *Pohl!* ad rivulos in campis prope Tacaramby inter Minas Novas *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Caules basi ramosissimi foliosi, rami 2-3-pedales, parum ramosi, obtuse tetragoni, sulcati, tenuiter cano-pubescentes. Folia inferiora 1-2-pollicaria, venosa, nunc utrinque viridia, sæpius subtus canescentia, superiora parva, sessilia, remota. Capitula et flores fere *H. microphyllæ*, sed calyces minus recurvi. "Corolla pallide purpurascens" (*St. Hil.*).

17. *H. LAVANDULACEA* (Pohl Ic. ined.), herbacea albo-tomentosa erecta, ramis virgatis, foliis linearibus apice denticulatis basi angustatis

utrinque cano-tomentosis, capitulis globosis dense multifloris longe pedunculatis, bracteis subulatis adpressis calyces subæquantibus, receptaculo nudo, calycis tubulosi pubescentis ore demum obliquo, dentibus subulatis.

Hab. in Brasilia: prope Fazenda de Gamelleira provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Affinis *H. divaricatæ*, sed habitu erecto, superficie cana, et foliis longioribus angustioribus distincta videtur.

18. *H. CAPRARIÆFOLIA* (Pohl Ic. ined.), suffruticosa basi ramosa, ramis elatis apice subnudis breviter pubescentibus, foliis parvis fasciculatis subsessilibus lanceolato-cuneatis acutis dentatis basi angustatis viridibus brevissime pubescentibus, capitulis longe pedunculatis parvis globosis dense multifloris, bracteis subulatis capitulum æquantibus, receptaculo nudo, calycibus fructiferis elongatis recurvis, dentibus subulatis molliter pubescentibus tubo brevioribus.

Hab. in Brasilia: ad Serra do Chrysais et in monte Clarvo provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

19. *H. DESERTORUM* (Pohl Ic. ined.), ramis rufo-tomentosis erectis, foliis petiolatis ovalibus obtusis crenatis basi angustatis crassis rugosis utrinque molliter rubiginoso-villosis, capitulis longe pedunculatis globosis dense multifloris, receptaculo nudo, bracteis capitulum æquantibus linearibus rufo-villosis, calycibus fructiferis elongatis recurvis, dentibus linearibus molliter rufo-villosis.

Hab. in Brasilia: in pascuis desertorum ad Rio Parahybuna provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

20. *H. BRUNNESCENS* (Pohl Ic. ined.) fruticosa? ramis breviter rufo-tomentosis, foliis petiolatis ovato-oblongis obtusis crenatis basi angustato-rotundatis rugosis supra scabridis subtus rufo-tomentosis, capitulis longe pedunculatis globosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum subæquantibus, calycibus fructiferis elongatis recurvis, dentibus subulatis molliter villosis tubo brevioribus.

Hab. in Brasilia: ad Engenho dos Bois provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

21. *H. REFLEXA* (St. Hil. MSS.), herbacea erecta dense rufo-villosissima, foliis subsessilibus ovatis acutis argute inæqualiter dentatis basi angustato-cuneatis utrinque molliter villosissimis, capitulis longe pedunculatis globosis dense multifloris, bracteis subulatis calyces æquantibus, receptaculo subnudo, calycibus fructiferis elongatis recurvis, dentibus subulatis molliter villosissimis tubo brevioribus.

Hab. in Brasilia: in campis herbidis prope Araxa provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caulis complures, duri, 1-2-pedales, parum ramosi, uti folia et pedunculi pilis mollibus rufis subsericeis dense vestiti, simplices vel superne corymboso-ramosi. Folia numerosa, 2-2½-pollicaria, sæpe ternatim verticillata, floralia conformia minora. Pedunculi in axillis foliorum superiorum 2-3-pollicares. Capitula fructifera 8-10 lin. diametro. Bracteæ reflexæ. Calyces membranacei, turbinato-tubulosi, ore recurvo truncato, dentibus reflexis. "Corolla purpureo-violacea, pubescens. Stamina pubescentia. Odor fœtidus" (*St. Hil.*).

22. *H. CARDIOPHYLLA* (Pohl Ic. ined.), caulibus erectis strictis lanato-hirsutissimis, foliis sessilibus amplexicaulibus late cordiformibus acutis subserratis molliter sericeo-lanatis, capitulis pedunculatis globosis dense multifloris, bracteis subulatis molliter villosis capitulum æquantibus, receptaculo nudo, calycibus fructiferis elongatis recurvo-deflexis, dentibus subulatis molliter villosis.

Hab. in Brasilia: ad Rio Uruhù, Ourofine et Santa Lucia provinciæ Goyaz, et ad Paracatù provinciæ Minas Geraes *Pohl!* in campis planitie elevatæ Chapada dictæ in parte occidentali ejusdem provinciæ *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Caules complures, 1-1½-pedales, simplices vel parce ramosi. Folia vix semipollicaria, erecta, replicata, nervo medio cauli adpresso, sinubus reflexis, et ideo caules quasi 4-alati, rugosa, subtus venosa. Pedunculi secus caulem raro 1½-2-pollicares, sæpius 3-6 ad apicem glomerati vix pollicares. Capitula fructifera semipollicem diametro. Bracteæ et flores *H. reflexæ*. "Corolla cærulea" (*St. Hil.*). Achenia oblonga, subcompressa, lævia.

SECTIO VI. CYANOCEPHALUS.

Cyanocephalus. *Pohl MSS.*

Florum capitula etiam juniora globosa dense multiflora. Bracteæ numerosæ adpressæ capitulum æquantes subulatæ molles villosæ in pedunculum reflexæ. Receptaculum nudum vel breviter pubescens. Calyx fructifer membranaceus turbinato-tubulosus rectus vel subincurvus basi glaber, dentibus subulatis tubo subæqualibus rectis molliter villosissimis. Corolla vix dentes calycinis superans. Herbæ vel suffrutices plerumque duri. Capitula versus apices ramorum pauca, cærulescentia, plerumque longe pedunculata.

When young, several of the first species of this section cannot be distinguished from some species of *Cyrta*. Others by the slight inflation of the tube of the calyx at its maturity come very near *Xanthiophæa*.

23. *H. LANATA* (Pohl Ic. ined.), suffruticosa, ramis lanato-hirsutissimis, foliis crebris sessilibus ovatis acutiusculis crenatis basi cordato-amplexicaulibus utrinque lanato-hirsutis subtus nervoso-rugosissimis, capitulis pedunculatis globosis dense multifloris, receptaculo subnudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis mollissime lanato-villosis tubo subæqualibus.

Hab. in Brasilia: ad Agua Gente et Trahiras provinciæ Goyaz *Pohl!* (v. s. sp. in herb. *Mus. Cæs. Reg. Bras. Vind.*)

24. *H. ADPRESSA* (*St. Hil. MSS.*), caulibus erectis strictis subsimplicibus pubescentibus, foliis sessilibus erectis ovato-lanceolatis acutis crenato-serratis basi rotundatis subcordato-amplexicaulibus rigidis nervosis glabris vel tomentosis, capitulis globosis dense multifloris longe pedunculatis, receptaculo nudo, bracteis subulatis capitulum æquantibus, calycibus rectis, dentibus subulatis molliter villosis tubo subæqualibus.

Hab. in Brasilia: in campis prope Torquilla in parte meridionali provinciæ Goyaz *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*)

Habitus fere *H. cardiophyllæ*, sed tenuior. Caules 1-2-pedales, basi denudati.

Folia 3-5 lin. longa, cauli adpressa, plana, basi vix cordata, subtus valde venosa, serraturis acutis vel obtusis, inferiora glabriuscula, suprema cano-tomentosa vel rarius rufescentia. Capitula fructifera vix semipollicem diametro. Flores *H. cardiophyllæ*, sed calyces recti videntur.

25. *H. RIGIDA* (Pohl Ic. ined.), suffruticosa, ramis pubescentibus erectis, foliis sessilibus ovatis acutiusculis serrato-crenatis basi cordato-amplexicaulibus rugosis supra brevissime subtus rufo-pubescentibus, capitulis longe pedunculatis globosis dense multifloris, receptaculo subnudo, bracteis subulatis capitulum subæquantibus, calycibus subrectis, dentibus subulatis mollissime villosis tubo subæqualibus.

Hab. in Brasilia: inter Calumbis et Barreros provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

A *H. nervosa* differt foliis angustioribus minus canescentibus, capitulis minoribus, et statura tenuiore rigidior.

This species appears very nearly allied to *H. adpressa*; but not having the opportunity of comparing the specimens, I am unwilling to unite them.

26. *H. FRAGILIFOLIA* (St. Hil. MSS.), suffruticosa, ramis erectis pubescentibus, foliis sessilibus ovato-rotundatis obtusis crenatis basi cordato-amplexicaulibus rigidis supra subglabris demum lucidis subtus reticulato-venosissimis subglabris, capitulis pedunculatis globosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum æquantibus, calycibus rectis, dentibus subulatis molliter villosis tubo subæqualibus.

Hab. in Brasilia: in arenosis quartzosis prope Penha provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Suffrutex, ramis duris basi fere glabris cortice rimoso superne pubescentibus. Folia semipollicaria, "dura, sicca, fragilia, odore gravi" (*St. Hil.*), subtus glabra, subresinosa. Capitula semipollicem diametro. "Corollæ pallide purpureæ" (*St. Hil.*). A *H. nervosa* differt præcipue glabritie.

27. *H. NERVOSA* (Pohl Ic. ined.), suffruticosa, ramis villoso-hispidis, foliis sessilibus ovato-rotundatis obtusis crenatis basi cordato-amplexicaulibus rugosis supra pubescentibus subtus cano-tomentosis, capitulis longe pedunculatis globosis dense multifloris, receptaculo subnudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis mollissime villosis tubo subæqualibus.

Hab. in Brasilia: inter Estiva et Rio de Prata provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

28. *H. CANDIDA* (Pohl Ic. ined.), suffruticosa, ramis albo-tomentosis, foliis sessilibus ovatis obtusiusculis crenatis basi cordato-amplexicaulibus rugosis supra canescentibus subtus albo-tomentosis, capitulis pedunculatis globosis dense multifloris, receptaculo subnudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis mollissime villosis tubo subæqualibus.

Hab. in Brasilia: inter Rio Jequitinhonha et Barreros provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

29. *H. MOLLISSIMA* (Benth. in Herb. Berol. MSS.), suffruticosa, ramis elongatis villosis, foliis sessilibus ovato-rotundatis acutiusculis crenatis basi cordato-amplexicaulibus nervoso-rugosis utrinque mollissime villosis, pedunculis folio longioribus, capitulis globosis dense multifloris, bracteis subulatis capitulum æquantibus, receptaculo nudo,

calycibus subrectis, dentibus subulatis molliter villosis tubo sublongioribus.

Hab. in Brasilia: in sepibus et cultis ad Congonhas de Sabará provinciæ Minas Geraes *Martius!* in collibus aridis argillosis prope pagum la Concepção ejusdem provinciæ *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.*)

Caules e basi lignosa erecti, 4-5-pedales. Rami pauci, subsimplices, obtuse tetragoni, pilis inæqualibus mollibus rufis glandulosis subroseis villosi. Folia 8-10 lin. longa, valde rugosa, juniora subsericea, omnia molliter villosa, regulariter crenulata. Pedunculi folio nunc parum nunc triplo longiores. Capitula violacea, fructifera 9 lin. diametro. Bractee uti dentes calycini subulatæ et molliter rufo-villosæ. Corollæ dentibus calycinis subbreiores, "obscure cæruleo-violaceæ" (*Mart.*)

30. *H. ARGUTA* (Pohl Ic. ined.), suffruticosa? elata, ramis dense rufo-villosis, foliis petiolatis lato-ovatis rotundatisve argute dentatis crassis rugosis utrinque dense villosis, capitulis longe pedunculatis globosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis mollissime villosis tubo subæqualibus.

Hab. in Brasilia: in pascuis desertorum ad Rio Parahybuna provinciæ Minas Geraes *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Species foliis densissime villosis majoribusque quam in affinibus distinctissima.

31. *H. RUGOSA* (Benth. in Herb. Berol. MSS.), caule fruticoso, ramis pubescenti-villosis, foliis breviter petiolatis ovato-rotundatis acutis argute serrato-crenatis basi rotundatis vel cordatis rugosis utrinque breviter rufo-villosis, capitulis longe pedunculatis dense globosis multifloris, bracteis subulatis capitulum subæquantibus, calycibus subrectis, dentibus subulatis molliter villosis tubo sublongioribus.

Hab. in Brasilia: in Serra das Carancas provinciæ Minas Geraes *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil.*)

Caulis erectus, 2-pedalis. Folia 6-9 lin. longa, sæpe ternatim verticillata, crassa, dura. Pedunculi 1½-4-pollicares.

32. *H. CUNEATA* (Pohl Ic. ined.), suffruticosa? ramis erectis tomentoso-pubescentibus, foliis breviter petiolatis obovatis late crenatis basi angustatis rigidis supra scabriusculis subtus reticulatis rufo-pubescentibus, capitulis globosis longe pedunculatis, receptaculo nudo, bracteis subulatis capitulum æquantibus, calycibus rectis, dentibus subulatis molliter villosis tubum subæquantibus.

Hab. in Brasilia: in campis desertorum ad Rio Parahybuna provinciæ Minas Geraes *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

33. *H. LIPPIOIDES* (Pohl Ic. ined.), fruticosa? ramis rufo-tomentosis, foliis breviter petiolatis ovatis crenatis basi rotundatis supra pubescentibus subtus reticulatis rufo-tomentosis rigidis, capitulis longe pedunculatis globosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis mollissime villosis tubum subæquantibus.

Hab. in Brasilia ad Chapado do Serra San Marcos ad Cabesseira Ribeirão Batalha provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Affinis *H. rigidæ*, habitus *H. nervosæ*, sed folia constanter petiolata, basi ovata, nec cordato-amplexicaulia.

34. *H. SELAGINIFOLIA* (Mart. MSS.), fruticosa, ramis subfasciculatis rigidis glabriusculis nodosis, foliis parvis subsessilibus linearibus acutis argute serratis basi angustatis rigidis glabris lævibus, capitulis longe pedunculatis globosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis mollibus villosis tubo subæqualibus.

Hab. in Brasilia: in campis ad Serra de San Antonio provinciæ Minas Geraes *Martius!* (*v. s. sp. in herb. Mus. Reg. Monac.*)

Habitus et capituli *H. rugosæ*, sed foliorum forma distinctissima.

35. *H. PEDUNCULARIS* (Benth. in Herb. Berol. MSS.), pubescens, foliis remotis sessilibus lanceolatis obtusis serratis basi rotundatis subcoriaceis supra glabris nitidis subtus nervosis tenuiter pubescentibus, capitulis longe pedunculatis globosis dense multifloris, receptaculo subnudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis molliter villosis tubo subæqualibus.

Hab. in Brasilia: in campis graminosis editioribus ad Serro Frio et Villa de Tepico provinciæ Minas Geraes *Martius!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. Mus. Reg. Monac.*)

Caulis herbaceus? erectus, subsimplex, strictus, striatus. Folia bipollicaria, at internodiis breviora. Pedunculi folio duplo longiores. Calyx tubulosus.

36.? *H. BISDENTATA* (*Pohl Ic. ined.*), herbacea? ramis erectis strictis breviter tomentoso-pubescentibus, foliis breviter petiolatis lanceolato-ovatis acutis argute duplicato-serratis basi cuneatis nervoso-rugosis utrinque pubescentibus vel subtus rufo-tomentosis, capitulis longissime pedunculatis globosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum subæquantibus, calycibus fructiferis elongatis subrecurvis, dentibus subulatis molliter villosis tubo brevioribus.

Hab. in Brasilia: in pascuis desertorum ad Rio Parahybuna ad Fazenda Tallaia et inter Piedade et Fanada provinciæ Minas Geraes *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Affinis *H. incisæ*, sed calyces fructiferi subrecurvi videntur. An hujus vel præcedentis sectionis?

37. *H. INCISA* (St. Hil. et Mart. MSS.), glabriuscula vel viscoso-pubescentia, caulibus basi procumbentibus adscendentibus, foliis breviter petiolatis ovatis lanceolatisve acutis irregulariter inciso-serratis undulatis basi rotundato-cuneatis rigidis utrinque subglabris, capitulis longe pedunculatis globosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum æquantibus, calycibus subrectis, dentibus subulatis mollibus villosis tubo subæqualibus.

Hab. in Brasilia: in campis deserti Serro Frio provinciæ Minas Geraes *Martius!* prope pagum Salgado in deserto occidentali ejusdem

provinciæ *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil. et Mus. Reg. Monac. sub eodem nom.*)

Affinis *H. pedunculari*, a qua foliis differt. Caules elongati basi vel omnino decumbentes. Folia circiter pollicaria uti pedunculi sæpe ternatim verticillata.

38. *H. LONGIPES* (St. Hil. MSS.), suffruticosa glabriuscula vel tomentoso-pubescens, foliis petiolatis oblongo-lanceolatis obtusiusculis irregulariter duplicato-dentatis margine undulatis basi angustato-cuneatis rigidis complicatis utrinque rufo-pubescentibus, capitulis longe pedunculatis globosis dense multifloris, bracteis subulatis capitulum æquantibus, receptaculo nudo, calycis pubescentis recti dentibus subulatis mollibus villosis tubo subæqualibus.

Hab. in Brasilia: in sylvis siccis Carrascos dictis prope pagum Sucuriù inter Minas Novas *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

A *H. incisa* differt foliis longius petiolatis complicatis et minus incisis, dentibus plerumque obtusis, et superficie rufo-pubescente. "Caules 3-3½-pedales. Corolla purpurascens. Herba tota viscosa, fœtens." (*St. Hil.*)

39. *H. ALBIPES* (St. Hil. MSS.), pilis adpressis lanata, caulibus procumbentibus, foliis subsessilibus ovato-lanceolatis acutis serrato-crenatis basi cuneatis utrinque molliter villosis, capitulis longe pedunculatis globosis dense multifloris, bracteis subulatis capitulum æquantibus, receptaculo nudo, calycis villosi dentibus subulatis mollibus villosis tubo subbrevioribus.

Hab. in Brasilia: in campis prope pagum Salgado in deserto occidentali provinciæ Minas Geraes *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Folia 1-1½-pollicaria, superiora sessilia, inferiora breviter petiolata, utrinque et præsertim subtus pilis mollibus subcanescentibus villosa. Pili caulis longi adpressi, pedunculorum densi patentes. Capitula præcedentium.

40. *H. ELONGATA*, molliter pilosa, foliis breviter petiolatis oblongis acutis remote inciso-crenatis serratisve basi angustatis utrinque molliter cano-villosis, capitulis longe pedunculatis globosis dense multifloris, receptaculo subnudo, bracteis lineari-subulatis calyces superantibus, calycis dense villosi dentibus subulatis mollissime villosis tubo longioribus.

Hab. in Peruvia: *Dombey!* ad Tonga *Ruiz et Pavon!* ad Cuesta de Purrochuca prope Limam *Mathews!* (*h. s. sp. comm. a cl. Lindley et v. s. sp. in herb. Lambert et Mus. Par.*)

Caulis basi lignosus, procumbens. Rami erecti pedales et ultra, subteretes, pilis patentibus dense vestiti. Folia vix rugosa, basi integerrima, subtus glandulosa. Pedunculi 6-9 poll. longi. Bracteæ obtusæ, villosissimæ. Calycis dentes longiores quam in speciebus præcedentibus, sed multo breviores quam in *Trichosphæriis*. Corolla calycem vix excedens.

SECTIO VII. ERIOSPHÆRIA.

Florum capitula semiglobosa dense multiflora. Bracteæ numerosæ adpressæ lanceolatae vel lineares, capituli fructiferi patentes nec in pedunculum reflexæ, sericeo-tomentosæ vel lanatæ. Receptaculum vil-

losissimum vel lanatum. Calyx campanulatus rectus basi subglaber apice lanato-villosissimus, dentibus plerumque brevibus rectis. Corolla vix calycem superans. Herbæ vel suffrutices plerumque duræ. Capitula plerumque breviter pedunculata versus apices ramorum pauca molliter sericeo-tomentosa vel lanato-villosissima.

With the exception of the *H. leucocephala*, which has many of the characters of *Cyanocephalus* and *Cephalohyptis*, this is a very natural section.

41.? *H. LEUCOCEPHALA* (Mart. MSS.), suffruticosa basi procumbens, ramis adscendentibus superne incano-pubescentibus basi glabris, foliis subsessilibus lanceolatis obtuse serratis basi angustatis rugosis subtus incano-tomentosis, capitulis longe pedunculatis parvis subglobosis dense multifloris albo-lanatis, receptaculo lanato, bracteis capitulum æquantibus dentibusque calycinis subulatis mollissime villosis.

Hab. in Brasilia: in campis arenosis prope Joazeiro secus flumen San Francisco et in pascuis siccis sepibusque ad montem Sanctum provinciæ Bahiensis *Martius*! (v. s. sp. in herb. Mus. Reg. Monac.)

Caulis basi crassus, ramis numerosis prostratis dein adscendentibus, ad axillas uti foliorum superiorum pagina inferior et capitula lana alba vestitis, inter nodos plerumque glabris vel apice pubescentibus. Folia semipollicaria ad pollicaria. Pedunculi 2-3 poll. longi. Calycis dentes tubo campanulato æquales. Corolla parum exserta rosea. Odor plantæ suavissimus aromaticus.

42. *H. PASSERINA* (Mart. MSS.), fruticosa divaricata, ramis sericeo-tomentosis, foliis subsessilibus parvis obovato-oblongis obtusis integerrimis undulatis basi angustatis aveniis utrinque sericeo-tomentosis, capitulis parvis semiglobosis dense multifloris breviter pedunculatis, receptaculo villosis, bracteis lanceolatis obtusis sericeo-tomentosis capitulum subæquantibus, calycis campanulati sericeo-villosissimi dentibus abbreviatis lanceolatis.

Hab. in Brasilia: in Serra de Piedade provinciæ Minas Geraes *Martius*! in rupibus cataractæ Curmatahy intra regionem adamantium ejusdem provinciæ *A. de St. Hilaire*! (v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Affinis *H. Selloi*, sed foliis ovatis undulatis distinctissima.

43. *H. SELLOI* (Benth. in Herb. Berol. MSS.), caule fruticoso procumbente, ramis sericeo-tomentosis, foliis sessilibus linearibus obtusis integerrimis planis basi angustatis aveniis cano-tomentosis, capitulis parvis semiglobosis dense multifloris breviter pedunculatis, receptaculo villosis, bracteis lanceolatis sericeo-tomentosis capitulum subæquantibus, calycis campanulati sericeo-villosi dentibus abbreviatis lanceolatis.

Hab. in Brasilia meridionali *Sello*! (h. s. sp. e Mus. Reg. Berol.)

Fruticulus divaricatus. Rami numerosi, breves, erectiusculi, subteretes. Folia crebra, vix semipollicaria, tomento subsericeo brevissimo utrinque canescentia. Capitula pauca, versus apices ramorum disposita, 4-5 lineas diametro. Pedunculi 2-3-lineares. Corollæ glabræ, tubo calycem breviter superante.

44. *H. ANGUSTIFOLIA* (Pohl Ic. ined.), caule fruticoso suberecto, ramis sericeo-tomentosis, foliis subsessilibus linearibus acutis apice dentatis basi integerrimis longe angustatis venosis utrinque sericeo-tomentosis, pedunculis capitulo semigloboso dense multifloro longioribus, receptaculo villosis, bracteis lanceolatis sericeo-tomentosis capitu-

lum æquantibus, calycis campanulati sericeo-villosi dentibus abbreviatis mollissimis lanceolatis.

Hab. in Brasilia: ad Serra d'Ourada provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Affinis *H. Selloi*, et quasi media inter hanc et *H. velutinam*. Fruticulus videtur erectus. Folia 1½-2½-pollicaria, floralia capitulum superantia.

45. *H. SAXATILIS* (St. Hil. MSS.), suffruticosa, ramis sericeo-tomentosis, foliis subsessilibus oblongo-lanceolatis acutis apice dentatis basi integerrimis angustatis venosis utrinque subsericeo-tomentosis, pedunculis capitulo semigloboso dense multifloro longioribus, receptaculo villosa, bracteis lanceolatis sericeo-tomentosis capitulum subæquantibus, calycis campanulati sericeo-lanati dentibus abbreviatis lanceolatis.

Hab. in Brasilia: in monte arido petræoque Alecrim inter Rio San Bartholomeo et Garapa provinciæ Goyaz *A. de St. Hilaire* (v. s. sp. in herb. St. Hil.)

Suffrutex, ramis divaricatis 1-2-pedalibus, uti folia tomento brevi subsericeo-candidis. Folia bipollicaria, rigida, venis subtus valde prominentibus. Pedunculi folio florali sæpius breviores. Capituli semipollicem diametro. Receptaculum et calyces dense tomentoso-lanati. Dentes calycini breves, subrecurvo-patentes. Corolla vix calycem excedens, "alba, apice pubescens. Filamenta glabra" (St. Hil.). Affinis *H. angustifoliæ*, sed foliorum forma abunde diversa.

46. *H. HILARII*, herbacea? dura, tota lana longa laxa sericea, foliis subsessilibus ovato-rotundatis obtusis crenulatis basi rotundatis crassis rigidis, capitulis semiglobosis dense multifloris breviter pedunculatis, receptaculo villosissimo, bracteis ovato-lanceolatis capitulum subæquantibus, calycis lanato-villosissimi dentibus abbreviatis acutis.

Hab. in Brasilia: in monte petroso Morro de Tisã dicto in parte meridionali provinciæ Goyaz *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caules complures, erecti, fere simplices, 1-1½-pedales, duri, uti tota planta pilis longis albis sericeis adpressis laxè vestiti. Folia 1-1½-pollicaria, subtus valde reticulato-venosa, floralia capitulum vix superantia, suprema breviora. Capitula pauca versus apicem caulis, demum fere pollicem diametro. Pedunculi plerumque capitulo longiores. Bracteæ foliaceæ, acutæ vel exteriores obtusæ. Lana receptaculi et calycis partis superioris densissima. Calycis tubus basi glaber, striatus. "Corolla alba. Stamina glabra" (St. Hil.). Achenia ovata, compressa, brunnea, lævia.

47. *H. VELUTINA* (Pohl. Ic. ined.), herbacea, tota pilis subsericeis velutina, foliis oblongo-lanceolatis obtusis crenatis basi in petiolum longe angustatis, capitulis semiglobosis dense multifloris breviter pedunculatis, receptaculo villosissimo, bracteis ovatis lanceolatisve capitulum subæquantibus, calycis villosissimi dentibus subulatis tubo brevioribus.

Hab. in Brasilia: non procul Villa Boa et inter Antes et Caretão provinciæ Goyaz *Pohl!* in sabulosis in Serra dos Pyreneos ejusdem provinciæ et in terris auriferis prope urbem Paracatù provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.)

Habitus et villositas *Bupthalmi aquatici*. Caules 1-2-pedales, erecti, parum ramosi. Folia 1-2-pollicaria, subtus valde venosa, sæpe complicata. Pedunculi capitulo plerumque breviores. Capitula fructifera 7-8 lin. diametro. Bracteæ nunc muticæ, nunc apice subulato-acuminatæ, subrecurvæ. "Corolla pallide purpureo-violacea. Stamina glabra" (St. Hil.).

The specimens gathered by M. de St. Hilaire at Paracatù are smaller, and have the appearance of being woody at the base; but as they do not in any other respect differ from the herbaceous specimens from the province of Goyaz, I consider this variation to be owing merely to the soil, or other local circumstances.

48. *H. ORIGANOIDES* (Pohl Ic. ined.), suffruticosa procumbens adpresso-pubescent, foliis oblongo-ovatis obtusis crenatis basi in petiolum brevem angustatis, capitulis semiglobosis dense multifloris breviter pedunculatis, receptaculo villosa, bracteis lanceolato-linearibus capitulum æquantibus, calycibus villosissimis, dentibus subulatis tubo brevioribus.

Hab. in Brasilia: in summitate montium Chapado do Serra San Marcos dicta et ad Cabesseiras do Ribeirão Batalha provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Affinis *H. velutinæ*, differt caule procumbente, superficie minus lanata, foliis brevioribus, bracteis dentibusque calycinis apice magis subulatis.

49. *H. DICTYODEA* (Pohl. Ic. ined.), ramis rigidis superne paniculatis cano-villosis, foliis breviter petiolatis ovalibus obtusis crenato-dentatis basi rotundato-cuneatis supra scabris subtus reticulatis lacunosos-rugosissimis ad nervos pubescentibus supremis acutis subtus canescentibus, capitulis pedunculatis subglobosis, receptaculo lanato, bracteis ovato-lanceolatis villosis capitulum æquantibus, calycis villosi dentibus subulatis rigidiusculis villosis tubo subbrevioribus.

Hab. in Brasilia: ad Fazenda Dios et Caldas et in Serra San Feliz prope Musquitos provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

50. *H. ADAMANTIUM* (St. Hil. MSS.), suffruticosa, tota pilis subsericeis velutina, foliis sessilibus ovalibus acutis subdentatis basi rotundatis, capitulis semiglobosis dense multifloris breviter pedunculatis, receptaculo villosa, bracteis lanceolatis acutis capitulum subæquantibus, calycibus lanato-villosissimis, dentibus abbreviatis lanceolato-subulatis.

Hab. ad ripas rivuli Corrego Novo in regione adamantium provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Suffrutex, 2-2½-pedalis. Folia vix semipollicaria. "Corolla rosea" (St. Hil.). Inflorescentia, flores, et villositas totius plantæ omnino *H. velutinæ*.

51. *H. CÆRULEA* (St. Hil. MSS.), herbacea, caulibus procumbentibus ramosis villosis, foliis parvis numerosis sessilibus ovatis obtusis crenatis basi cordatis rugosis pubescentibus, capitulis semiglobosis dense multifloris, pedunculis capitulo sublongioribus, bracteis lanceolato-linearibus recurvis capitulum æquantibus, receptaculo lanato, calycibus villosissimis, dentibus subulatis abbreviatis.

Hab. in Brasilia: in pascuis montis Serra da Canastra dicti provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Herba humilis, procumbens, nunc vix semipedalis, ramosissima, ramis nunc fere pedalibus subsimplicibus. Folia plerumque 3-4, linearia, rarius semipollicaria, valde rugosa et sæpe rufescentia, floralia pedunculo breviora. Capitula fructifera vix semipollicaria, rufescentia. Bracteæ numerosæ, apice recurvæ. "Corolla cærulea. Stamina basi pubescentia" (St. Hil.). A *H. crenata* differt statura humili, foliis, et capitulis minoribus, dentibus calycinis bracteisque brevioribus, et habitu.

52. *H. ALPESTRIS* (St. Hil. MSS.), herbacea, caulibus adscendentibus vel erectis parce ramosis rufo-villosis, foliis numerosis sessilibus ovato-oblongis obtusis crenatis basi cordato-amplexicaulibus reflexis rugosis velutino-pubescentibus, capitulis semiglobosis dense multifloris, pedunculis capitulum subæquantibus, bracteis lanceolato-linearibus capitulum æquantibus, receptaculo lanato, calycis villosissimi dentibus subulatis abbreviatis.

Hab. in Brasilia: in humidis herbosis camporum elatiorum prope Serra da Canastra provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. *sp. in herb. St. Hil.*)

Omnibus partibus major est quam *H. cærulea* et *gratiolæfolia*. Caules elongati, virgati. Capitula majora et longius pedunculata. Folia in speciminibus suppetentibus hujus speciei constanter reflexa sunt, in *H. gratiolæfolia* erecta, in *H. cærulea* patentia. An omnes ejusdem speciei polymorphæ varietates?

53. *H. GRATIOLÆFOLIA* (St. Hil. MSS.), herbacea, caulibus erectis basi ramosis, ramis virgatis rufo-villosis, foliis parvis numerosis sessilibus ovatis obtusis crenatis basi cordatis rugosis rufo-pubescentibus, capitulis semiglobosis dense multifloris, pedunculis capitulum æquantibus, receptaculo lanato, bracteis lanceolato-linearibus capitulo sublongioribus apice recurvis, receptaculo lanato, calycibus villosissimis, dentibus subulatis tubum subæquantibus.

Hab. in campis in planitie elevata occidentali provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. *sp. in herb. St. Hil.*)

A *H. cærulea*, cui statura, foliis, et capitulis similis est, differt habitu et bracteis dentibusque calycinis longioribus. Capitula pauca, in corymbis terminalibus approximata.

54. *H. GOYAVENSIS* (St. Hil. MSS.), herbacea vel suffruticosa (?) adscendens vel erecta, ramis pilis longis dense villosis, foliis sessilibus ovali-ellipticis obtusis crenatis basi cordatis rugosis villosis, capitulis semiglobosis dense multifloris, pedunculis capitulo brevioribus, bracteis linearibus rectis capitulum æquantibus, receptaculo lanato, calycibus villosissimis, dentibus subulatis abbreviatis.

Hab. in Brasilia: in campis prope Laage in regione meridionali provinciæ Goyaz *A. de St. Hilaire!* (v. s. *sp. in herb. St. Hil.*)

Herba basi dura vel suffrutex circiter pedalis parce ramosus. Folia $\frac{1}{2}$ -1-pollicaria, dura, crassa, valde rugosa, eleganter crenulata, crenaturis undulatis. Capitula fere duplo majora quam in *H. cærulea*, floribus lana rufescente dense immersis. "Corolla azurea, pubescens. Stamina glabra" (*St. Hil.*). Differt a *H. cærulea* et affinis foliorum forma et habitu, a *H. crenata* bracteis muticis et dentibus calycinis abbreviatis.

55. *H. OVATA* (Pohl Ic. ined.), caule herbaceo erecto rigido villoso, foliis sessilibus ovatis obtusis crenatis basi cordatis reticulato-rugosissimis utrinque tomentoso-pubescentibus, capitulis semiglobosis dense multifloris breviter pedunculatis, receptaculo villoso, bracteis basi lanceolatis calycisque villosiusculi dentibus longe subulatis glabriusculis.

Hab. in Brasilia: inter Allegres et Trinidad provinciæ Minas Geraes *Pohl!* (v. s. *sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

A *H. crenata* differt foliis latioribus glabrioribus, dentibus calycinis bracteisque glabrioribus longius subulatis.

56. *H. CRENATA* (Pohl Ic. ined.), herbacea, caule erecto rigido villosa, foliis sessilibus oblongo-ovatis obtusis crenatis basi rotundatis utrinque villosis reticulato-rugosis, capitulis semiglobosis dense multifloris, receptaculo lanato, bracteis basi lanceolatis apice longe subulatis calyces superantibus, calycis dense villosi dentibus subulatis villosis tubo vix longioribus.

Hab. in Brasilia: ad Rio Crixas prope Congo do Padre et San Felix, ad Rio Reazon et in via a Pillar ad Agoa Guente provinciæ Goyaz et inter Allegres et Trinidado provinciæ Minas Geraes *Pohl!* in campis siccis editis ad montes Serra de Santo Antonio et Serra de Gran Mogol dictos ejusdem provinciæ et in campis et sylvis Catingas provinciæ Bahiæ interioris *Martius!* in provincia Matto grosso! (Herb. Mus. Par.) inter rupes in Serra Dourada provinciæ Goyaz *A. de St. Hilaire!** (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind., Mus. Reg. Monac., Mus. Par. et St. Hil.)

Species valde variabilis, altitudine sæpius circiter pedalis, tota pilis longis patentibus et tomento rubiginoso plus minusve obsessa. Capitula juniora dense et mollissime tomentosa, adultiora glabriora. Folia crebra, sæpius valde reticulato-rugosa, crenaturis æqualibus, margine revolutis. A *H. cærulea* et affinibus bracteis longe subulatis constanter distinguitur.

57. *H. TURNERÆFOLIA* (Mart. MSS.), suffruticosa, ramis pubescentibus, foliis subsessilibus oblongo-lanceolatis obtusis subcrenatis basi rotundatis cordatisve utrinque pilis adpressis molliter villosis subtus pallidis, capitulis semiglobosis dense multifloris breviter pedunculatis, receptaculo lanato, bracteis lanceolato-linearibus capitulum æquantibus, calycis apice villosissimi dentibus subulatis tubo brevioribus.

Hab. in Brasilia: in campis sterilibus calidis in Serro Frio provinciæ Minas Geraes *Martius!* in campis prope Barbados ejusdem provinciæ *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Habitus fere *Inulæ dysentericæ*. Folia mollia, rugosa, pube subtus subtomentosa, semipollicaria vel vix pollicaria. Capitula in apices ramorum subcorymbosa, fructifera semipollicem diametro. Bracteæ apice recurvæ, demum reflexæ. Calyx lana alba villosissimus. Corolla vix calyce longior, "alba, labio superiore purpureo-notato. Stamina glabra" (*St. Hil.*). Species inter *H. crenatam* et *velutinam* media.

58. *H. ASTEROIDES* (St. Hil. MSS.), caulibus erectis simplicibus villosis, foliis sessilibus erectis lanceolatis obtusis crenatis basi cordatis margine revolutis rugosis villosis, capitulis pedunculatis globosis dense multifloris, bracteis lanceolato-subulatis capitulum æquantibus, receptaculo lanato, calycis apice villosissimi dentibus subulatis tubo longioribus.

Hab. in Brasilia *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caules complures subpedales. Habitus *Asterum*, sectionis *Galatellæ*. Folia fere *Myosotidis apulæ*. Capitula *H. crenatæ*, sed bracteæ et dentes calycini minus recurvi.

* I believe that it is of this species that there is a specimen brought by Bonpland from the province of Atures, which I saw in Professor Kunth's herbarium in 1830, but which I have not since had an opportunity of comparing with any of the above.

SECTIO VIII. OOCEPHALUS.

Florum capitula ovoidea densa pauciflora. Bracteæ numerosæ adpressæ ovatæ. Calyx tubuloso-campanulatus rectus, dentibus subulatis mollissime villosis tubo longioribus. Suffrutices fruticesve, capitulis pedunculatis ad apices ramorum paniculatis.

59. *H. HALIMIFOLIA* (Mart. MSS.), suffruticosa? ramis adscendentibus canis, foliis subsessilibus ovalibus obtusis integerrimis basi rotundatis utrinque canis, capitulis pedunculatis ovatis canis dense plurifloris, receptaculo nudo, bracteis ovatis obtusiusculis capitulum subæquantibus, calycis tubulosi dentibus subulatis mollissime villosis.

Hab. in Brasilia: in campis altis petrosis ad Villa do Rio de Contas provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Foliorum forma et color totius plantæ omnino *Atriplicis Halimi*. Rami subsimplices, dense foliosi, versus apices floriferi. Pedunculi folia breviter superantes. Capitula circiter 4 lin. longa, 2½ lin. lata. Bracteæ extus lanatæ, margine subciliatæ, intus nitidæ. Calyx apice mollissimus, basi glabriusculus, membranaceus. Corolla breviter exserta. Achenia ovoidea, lævia, nitida.

60. *H. CRASSIFOLIA* (Mart. MSS.), suffruticosa, ramis dense tomentoso-hispidis, foliis crebris sessilibus rotundatis obtusissimis basi cordato-amplexicaulibus margine revolutis utrinque hirsutissimis, capitulis breviter pedunculatis ovato-globosis densis 6-10-floris, receptaculo nudo, bracteis lanceolatis capitulum æquantibus hispidissimis, dentibus calycinis subulatis villosissimis tubo subæqualibus.

Hab. in Brasilia: in petrosis ad Villa do Rio de Contas interioris provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Suffrutex humilis, basi divaricatus, ramosus. Rami adscendentes, parce ramosi. Folia vix semipollicaria, crassa, pilis strigoso-hispidis densissime obsita, floralia parva. Capitula diametro 2-3 lin. secus ramos breves disposita. Corollæ exsertæ, extus pubescentes.

61. *H. LACUNOSA* (Pohl Ic. ined.), fruticosa, ramis molliter villosis, foliis subsessilibus ovatis obtusissimis vix crenatis basi cordatis rugosis subtus rufescentibus vel canescentibus tomentoso-pubescentibus, capitulis pedunculatis ovatis dense paucifloris, receptaculo nudo, bracteis ovatis adpressis dentibus calycinis dimidio brevioribus, calycis villosi dentibus subulatis molliter villosis tubo longioribus.

Hab. in Brasilia: ad Santa Ingrazia provinciæ Minas Geraes *Pohl!* in campis altis ad aurifodinas prope Villa Rica et alibi ejusdem provinciæ *Martius!* (v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind., et Mus. Reg. Monac.)

Rami erecti, superne subpaniculati. Folia circiter pollicaria, in speciminibus Pohljanis sessilibus amplexicaulibus, in Martianis et Hilarianis brevissime petiolatis, sed verosimiliter species non diversæ sunt. Folia floralia gradatim minora sessiliora. Racemi secundi. Capitula numerosa, 4-10-flora, fructifera 2-3 lin. longa, pedunculo 3-4-lineari. Corolla vix dentes calycinos excedens.

SECTIO IX. TRICHOSPHERIA.

Florum capitula globosa dense multiflora. Bracteæ numerosæ adpressæ subulatæ, capituli fructiferi in pedunculum reflexæ. Receptaculum nudum. Calyx campanulatus rectus, dentibus filiformibus molliter plumosis tubo multoties longioribus. Corolla dentibus calycinis brevior. Suffrutices fruticesve plerumque tomentosi, capitulis numerosis longe pedunculatis ample paniculatis plerumque cærulescentibus.

62. *H. CRINITA* (Benth. in Herb. Berol. MSS.), caule fruticoso, ramis cano-tomentosis, foliis subsessilibus oblongo-lanceolatis acutiusculis integerrimis subserratisve basi angustatis cano-tomentosis subrugosis floralibus pedunculo brevioribus, capitulis globosis dense multifloris, bracteis linearibus subulatisve capitulo brevioribus, receptaculo nudo, calycis villosi dentibus filiformibus molliter plumosis tubo multoties longioribus.

β *polycephala*, foliis minoribus magis tomentosis, capitulis numerosis.

Hab. in Brasilia: ad Pontefeita provinciæ Goyaz et ad Registo Velho et Rio Jequitinhonha provinciæ Minas Geraes *Pohl!* in sylvis cæduis arenosis prope pagum Penha inter Minas Novas *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Caulis 2-2½-pedalis, basi lignosus. Rami divaricati, superne adscendentes. Folia opposita vel ternatim verticillata, media pollicaria, superiora minora, floralia conformia, omnia tomento brevissimo cano vel pallide rufescente molliter canescentia, subtus valde venosa, margine integerrima vel versus apicem dentibus paucis utrinque notata. Capitula in apicem ramorum, præsertim in var. β , subpaniculata, dentibus calycinis longissimis crinita. Bracteæ cano-pubescentes, exteriores sub lanceolatae. Calyces campanulati, tubo brevissimo, dentibus 3 lin. et ultra longis. Corollæ dentibus calycinis breviores, "pallide roseo-albæ" (*St. Hil.*).

63. *H. SPIRÆÆFOLIA* (Mart. MSS.), fruticosa, ramis cano-tomentosis, foliis breviter petiolatis cuneato-oblongis obovatisve obtusis mucronulatis crenatis basi cuneatis subtus cano-tomentosis rigidiusculis, panícula ampla, capitulis breviter pedunculatis globosis dense multifloris, bracteis subulatis capitulum subæquantibus, receptaculo nudo, calycis villosi dentibus filiformibus molliter plumosis tubo multoties longioribus.

Hab. in Brasilia: in campis deserti Serro Frio ad flumen Jequitinhonha provinciæ Minas Geraes *Martius!* (*v. s. sp. in herb. Mus. Reg. Monac.*)

Frutex ramis tetragonis sæpe uti folia ternatim verticillatis. Folia semipollicaria ad pollicaria, caulina inferiora late obovata, superiora et ramealia angustiora, omnia supra rugosiuscula subcanescentia, subtus venosa cano-pubescentia vel tomentosa, floralia pedunculo 3-6-lineari vel rarius subpollicari breviora. Capitula versus apices ramulorum racemosa, racemis ample thyrsoido-paniculatis, fructifera circiter 9 lin. diametro. Calyx campanulatus, laciniis demum fere 4 lin. longis, molliter flexuosis, plumosis, corollam subsuperantibus. Species inter *H. crinitam* et *H. multifloram* media.

64. *H. MARTIUSI*, fruticosa, ramis tenuiter tomentosis, foliis petiolatis ovato-oblongis obtusis crenatis basi rotundato-cuneatis supra

rugosulis pubescentibus subtus incano-tomentosis, capitulis globosis dense multifloris pedunculatis paniculatis, bracteis subulatis capitulo subbrevioribus, receptaculo nudo, calycibus fructiferis elongatis, tubo inflato, dentibus filiformibus molliter plumosis tubo longioribus.

Hab. in Brasilia: in sylvis Catingas inter Santa Anna et Santo Antonio das Quemadas provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Frutex humanæ altitudinis et ultra. Folia mollia, caulina bipollicaria, petiolo 3-6-lineari, ramealia minora, floralia pedunculo subpollicari breviora. Panicula *H. spirææfoliæ*, et ut in hac specie lacinia calycis fructiferi 3-4 lin. longæ, molliter flexuosæ et plumosæ, sed tubus valde elongatus, membranaceus, medio inflatus, superne jugulatus. Corolla alba dentibus calycinis subbrevior, limbo gracillimo sursum campanulato dilatato. Achenia ovoideo-compressa. A *H. eriophylla* differt ramis brevissime tomentosis nec dense lanatis, foliis tenuibus acutioribus supra pubescentibus nec villosis-lanatis subtus magis incanis, et aliis notis.

65. *H. ERIOPHYLLA* (Pohl Ic. ined.), fruticosa? ramis albo-vel subrufo-lanatis, foliis subsessilibus ovalibus obtusis crenatis basi rotundatis supra villosis tomentosisve subtus cano-tomentosis vel floccoso-lanatis, capitulis dense globosis multifloris pedunculatis paniculatis, bracteis lineari-subulatis capitulo subbrevioribus, receptaculo subnudo, dentibus calycinis filiformibus molliter plumosis tubo longioribus.

β coriifolia, minus tomentosa.

Hab. in Brasilia: ad Megaponte et Santa Lucia provinciæ Goyaz *Pohl!* in campis siccis meridionalibus provinciæ Minas Geraes *A. de St. Hilaire!* *β* ad Currallino provinciæ Goyaz et ad Congo Boa Vista in Serra Bom Jardim provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.)

Caules lignosi, complures, erecti, ramosi, ramis basi foliosis, panicula demum fere pedali. Folia ramealia bipollicaria, floralia minora, omnia crassa rigida, crenaturis regularibus undulatis, utrinque tomento denso supra rufo subtus pallido vel albido vestita. Paniculæ rami lanato-villosissimi. Capitula 6-10 lin. diametro, in vivo uti corollæ amethystinea (*St. Hil.*), siccitate cœrulescentia.

66. *H. BRACHYPHYLLA* (Mart. MSS.), fruticosa, foliis petiolatis lato-ovatis obtusis crenatis basi rotundatis rugosis utrinque breviter subrufo-tomentosis, capitulis globosis dense multifloris pedunculatis paniculatis, bracteis subulatis capitulo subbrevioribus, receptaculo nudo, calycibus fructiferis elongatis, tubo inflato, dentibus filiformibus molliter plumosis tubo longioribus.

Hab. in Brasilia: in campis ad Serro Frio provinciæ Minas Geraes *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Affinis *H. eriophyllæ*, sed foliis brevioribus latioribus distincta.

67. *H. MULTIFLORA* (Pohl Ic. ined.), fruticosa, ramis cano-tomentosis, foliis brevissime petiolatis ovato-rotundatis argute crenatis subtus albo-tomentosis coriaceis rigidis, panicula amplissima, capitulis breviter pedunculatis globosis dense multifloris, bracteis subulatis capitulum subæquantibus, receptaculo nudo, calycis villosi dentibus filiformibus molliter plumosis tubo multoties longioribus.

Hab. in Brasilia: inter Rio Jequitinhonha et Calumbis provinciæ Minas Geraes *Pohl!* in sylvis Catingas provinciæ Bahiensis interioris

Martius! (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et Mus. Cæs. Reg. Monac.)

Ab *H. Martiusi* differt uti *H. brachyphylla* ab *H. eriophylla*, foliis latioribus basi rotundatis.

SECTIO X. XANTHIOPHŒA.

Xanthiophœa. Mart. MSS.

Florum capitula globosa dense multiflora. Bracteæ numerosæ adpressæ subulatæ. Calyx turbinato-campanulatus, fructifer membranaceus medio inflatus, ore contracto, dentibus subulatis rigidis erectis vel patentibus. Corollæ tubus calycem æquans vel sublongior. Herbæ procumbentes vel divaricatæ, capitulis longe pedunculatis.

This section differs from *Cyanocephalus* by the form of the calyx. In the *H. sideritis* it has almost constantly ten teeth; and the inflation of the tube is so peculiar, that I should have adopted the genus as established by Professor Martius in his MSS., had not the two other species formed so gradual a passage to several species of *Cyanocephalus*, that I found it impossible to give any tolerably accurate distinctive character.

68. *H. SIDERITIS* (Mart. MSS.), herbacea procumbens, ramis adscendentibus pilosissimis, foliis infimis petiolatis ramealibus subsessilibus ovatis acutis argute serratis basi rotundatis cordatisve rigidis utrinque viridibus piloso-hispidis, capitulis paucis pedunculatis globosis dense multifloris, bracteis lineari-subulatis capitulum æquantibus, receptaculo nudo, calycis hispidi fructiferi tubo medio inflato subcalloso-annulato, ore contracto, dentibus 5-10 inæqualibus subulatis rigidis divaricatis.

Hab. in Brasilia: in locis hieme inundatis inter Japera et Capão et circa prædia prope Salgado in deserto provinciæ Minas Geraes *Martius!* prope eundem pagum Salgado *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Herba pallide virens, tota pilis rigidiusculis patentibus plus minusve obsessa. Caules 1-2-pedales, tetragoni. Folia pollicaria. Pedunculi sesquipollicares, raro oppositi. Corolla violacea, calyce duplo longior. Calyces fructiferi primo intuitu fructibus *Scabiosæ columbariæ* similes sunt, et ob dentes calycinos sæpe 10 hæc species a Martiuso ut genus proprium habetur, sed mediantibus *H. lobata* et *lagenaria* meo sensu a *Hyptidibus cyanocephalis* et *Trichosphæriis* non separanda.

69. *H. LOBATA* (St. Hil. MSS.), herbacea procumbens, piloso-pubescens, foliis petiolatis lato-ovatis acutis sinuato-lobatis crenatis basi cordatis utrinque viridibus, capitulis longe pedunculatis globosis dense multifloris, bracteis subulatis capitulum subæquantibus, receptaculo nudo, calycibus breviter hispidis fructiferis inflato-lageniformibus, ore contracto recto truncato, dentibus 5-6 subæqualibus subulatis rigidis pubescentibus tubo brevioribus.

Hab. in Brasilia: in pascuis prope San Joze provinciæ Sancti Pauli *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caules elongati, ad nodos inferiores sæpe radicanes, pilis brevibus subviscosis pubescentes, angulis obtusis. Folia fere *Althææ hirsutæ*, floralia sessiliora pedunculo multo breviora. Bracteæ 2 exteriores a capitulo sæpius parum distantes, omnia

uti dentes calycini pilis brevibus subglandulosis hispido-pubescentes, et apice interdum hamulosæ. Capitula florigera 4-5 lin. diametro, fructifera duplo majora. Calyces fructiferi membranacei, prope basin valde inflati, superne elongati, fauce intus subvillosa, dentibus sæpe sex erecto-patentibus. Achenia oblonga, nigra, sub lente tenuiter rugulosa. "Corolla cœrulea. Odor fœtidus" (St. Hil.).

70. *H. LAGENARIA* (St. Hil. MSS.), herbacea, ramis adscendentibus glabriusculis, foliis petiolatis ovatis acuminatis acutis duplicato-dentatis basi rotundatis viridibus pubescentibus, capitulis pedunculatis paniculatis subglobosis dense multifloris, receptaculo nudo, bracteis subulatis capitulum subæquantibus, calycis fructiferi glabri tubo inflato lageniformi, ore truncato subobliquo, dentibus subulatis glabris tubo brevioribus.

Hab. in Brasilia *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Folia *H. spicata* vel *H. umbrosæ*. Capitula *H. lobata*, sed minora. Calyces plerumque 5-dentati, exteriores ore obliquo; fructiferi valde inflati, sed minores quam in *H. lobata*. Bracteæ uti dentes calycini apice sæpe hamulosi.

SECTIO XI. CEPHALOHYPTIS.

Florum capitula semiglobosa vel demum globosa dense multiflora. Bracteæ numerosæ adpressæ ovatae lanceolatae lineares vel rarius subulatae. Receptaculum glabrum vel rarius villosum. Calyx campanulatus vel tubulosus rectus glaber pubescens vel villosus-hispidus nec lanatus, dentibus subulatis vel basi lanceolatis rarius brevissimis obtusis. Corolla calycem breviter superans. Herbæ suffruticesve, capitulis axillaribus pedunculatis vel subsessilibus.

I have united into one section a large number of species which have much resemblance in habit; and although, as a whole, no positive character can be given to separate them from all others, yet there is not, I believe, to be found in any one of these species the combination of characters which distinguish every other section. The *Gnidiæ-foliæ* and *Marrubiastræ* are allied to *Cyanocephalus*, but have lanceolate or ovate bracts; the *Lavandulacæ* and *Pedunculosæ*, with the habit of some species of *Cyrta*, have straight calyxes; the other divisions differ from *Cyanocephalus*, *Trichosphæria*, &c. by their heads of flowers, which are but semiglobose, or only form the complete sphere in a few species (in which the teeth of the calyx are glabrous) at their maturity; and from *Eriosphæria*, by the want of the thick wool in which the flowers of that section are immersed.

§ 1. *GNIDIÆFOLIÆ*. *Folia parva integerrima basi cordata margine revoluta. Capitula fructifera globosa villosa. Bracteæ ovatae vel lanceolatae.*

71. *H. IMBRICATA* (Pohl Ic. ined.), ramis erectis vel adscendentibus virgatis pilosis, foliis sessilibus erectis caule adpressis imbricatis lanceolatis acutis integerrimis margine revolutis ciliatis basi dilatato-cordatis utrinque glabris, capitulis dense globosis multifloris, pedunculis folio subbrevioribus, bracteis ovatis acutis rigidis capitulo sublongioribus, calycis campanulati hispidi basi glabri dentibus subulatis villosis demum subpatentibus.

Hab. in Brasilia : inter Aldega Caretão do Pedro terceiro et Crixas provinciæ Goyaz *Pohl!* in campis ad Riachao deserti Serro Frio provinciæ Minas Geraes *Martius!* prope Pe do Morro in eodem deserto *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*, *Mus. Cæs. Reg. Bras. Vind.*, et *Mus. Reg. Monac.*)

Herba perennis basi sublignosa, procumbens. Rami circiter pedales, subsimplices ut in *Gnidiis* foliis erectis adpressis omnino obtecti. Capitula 1-3, versus apices ramorum rarissime opposita, fructifera bracteis reflexis globosa semipollicem diametro. Receptaculum glabrum. Pedunculus crassus, 2-4 lin. longus, pilosissimus. Bracteæ margine pilosæ. Calyx basi valde attenuatus, glaber, membranaceus, dentibus tubum fere æquantibus purpurascens. Corolla vix dentes calycinis superans, extus pubescens, tubo citrino compressiusculo, limbi laciniis 2 superioribus roseis, lateralibus flavescentibus, infima rosea. Achenia oblonga, pallida, lævia.

72. *H. DITASSOIDES* (Mart. MSS.), suffruticosa, ramis villosis, foliis sessilibus parvis crebris patentibus ovatis obtusissimis integerrimis margine revolutis basi cordato-amplexicaulibus supra bullatis glaberrimis subtus uninerviis villosis, capitulis dense globosis multifloris brevissime pedunculatis, bracteis lanceolatis villosis, calycis basi glabriusculi elongati dentibus subulatis villosissimis.

Hab. in Brasilia : in adscensu Serra de Itacubé in Serro Frio provinciæ Minas Geraes *Martius!* (v. s. sp. in herb. *Mus. Reg. Monac.*)

Habitus omnino *Penææ* vel, teste Martio, *Ditassæ*. Folia 3 lin. longa. Capitula demum pollicem diametro, plerumque solitaria, subterminalia. Receptaculum pilosissimum. Corolla *H. imbricatæ*.

§ 2. LAVANDULACEÆ. *Folia basi angustata integerrima apice subdentata. Capitula fructifera globosa villosa. Bracteæ lanceolatae vel lineares.*

73. *H. LINARIOIDES* (Pohl Ic. ined.), suffruticosa, ramis erectis strictis elatis subcanescentibus, foliis sessilibus linearibus subintegerrimis basi angustatis tenuissime cano-pubescentibus, capitulis subglobosis dense multifloris longe pedunculatis, bracteis lanceolatis albo-tomentosis exterioribus capitulum subsuperantibus, receptaculo subnudo, calycis villosi dentibus subulatis erectis molliter villosissimis tubum subæquantibus.

Hab. in Brasilia : ad Corumba provinciæ Goyaz *Pohl!* in campis Serro Frio provinciæ Minas Geraes *Martius!* in campis occidentalibus ejusdem provinciæ et prope Aldea d'Alto dos Boys inter Minas Novas *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*, *Mus. Cæs. Reg. Bras. Vind.*, et *Mus. Reg. Monac.*)

Affinis *H. strictissimæ*, a qua non differt nisi capitulis majoribus villosioribus, bracteis latioribus, et dentibus calycinis longioribus; a *H. densifolia* foliis brevioribus et dentibus calycinis subulatis distincta est. Caules simplices vel parum ramosi, 1½-3½-pedales, uti folia tomento brevissimo subcanescentia. Folia 1-3-pollicaria, ut in speciebus affinis sæpe ternatim verticillata, rarissime dentata, superiora minora, floralia parva. Capitula versus apices ramorum pauca, floralia 6-7 lin. diametro semiglobosa, fructifera 8-10 lin. diametro, bracteis reflexis fere globosis. Receptaculum nudum vel pubescens. Corollæ albæ, purpureo-maculatæ.

74. *H. STRICTISSIMA* (Pohl Ic. ined.), suffruticosa, ramis erectis strictis elatis breviter adpresso-pubescentibus, foliis sessilibus linearibus subintegerrimis basi angustatis tenuissime cano-pubescentibus, capitulis subglobosis dense multifloris longe pedunculatis, bracteis linearibus

exterioribus capitulum subæquantibus, receptaculo nudo, calycis tubuloso-campanulati villosi dentibus subulatis erectis tubo dimidio brevioribus.

Hab. in Brasilia: in summitatem montium Chapada do Serra San Marcos dicta ad Cabesseira do Ribeirão Batalha provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

75. *H. DENSIFOLIA* (*Pohl Ic. ined.*), suffruticosa, ramis erectis breviter adpresso-pubescentibus, foliis sessilibus oblongis integerrimis vel apice denticulatis basi angustatis venosis glabriusculis vel tenuissime tomentoso-pubescentibus, capitulis globosis dense multifloris longe pedunculatis, bracteis lanceolatis exterioribus capitulo longioribus obtusis, receptaculo nudo, calycis tubuloso-campanulati villosi dentibus subulatis erectis tubo multo brevioribus.

Hab. in Brasilia: ad San Marcos provinciæ Goyaz *Pohl!* in campis prope Sabarà provinciæ Minas Geraes *Martius!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.*)

Habitus *H. linarioides*, a qua foliis latioribus differt.

76. *H. VERONICÆFOLIA* (*Pohl Ic. ined.*), caule procumbente pubescente, foliis sessilibus ovalibus apice dentatis basi rotundato-cuneatis utrinque glabriusculis, capitulis longe pedunculatis subglobosis dense multifloris, bracteis lanceolatis obtusis capitulum æquantibus, receptaculo nudo, calycis tubulosi villosi dentibus subulatis erectis tubo dimidio brevioribus.

Hab. in Brasilia: ad Engenho prope San Sebastião provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

§ 3. *PEDUNCULOSÆ. Capitula longe pedunculata semiglobosa. Bracteæ subulatæ. Calyces glabri vel pubescentes, dentibus subulatis.*

77. *H. TETRAGONA* (*Pohl Ic. ined.*), caule erecto glabriusculo, angulis acutis pubescentibus, foliis breviter petiolatis ovalibus obtusis crenatis basi angustatis rugosis supra scabridis subtus rubiginoso-pubescentibus, pedunculis elongatis inferioribus ramosis, capitulis subglobosis dense multifloris, bracteis subulatis calyces æquantibus, calycis tubuloso-campanulati subvillosi dentibus lanceolato-subulatis rigidis glabriusculis.

Hab. in Brasilia: ad Engenho dos Boys provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Caulis elatus, rigidus, crassus, angulis valde prominentibus. Folia caulina remota, forma et magnitudine *H. confertæ*, floralia parva lanceolata. Pedunculi inferiores 4-6-pollicares (vel rami caulis), apice capitula 2-6 gerentes, superiores vix pollicares. Dentes calycini breves.

78. *H. MULTIBRACTEATA* (*Benth. in Herb. Kunth. MSS.*), herbaea, glabra vel superne pubescens, nodis pilosis, foliis breviter petiolatis ovatis acuminatis serratis basi rotundatis vel in petiolum attenuato-decurrentibus villosissimis rugosis, pedunculis tomentosis capitulo semigloboso dense multifloro longioribus, bracteis numerosissimis linearibus subradiantibus capitulo sublongioribus, calycis glabriusculi dentibus abbreviatis lanceolato-linearibus rigidis.

Hab. in Brasilia: in provincia Bahiensi interiore *Martius!* ad Rio

Janeiro *Langsdorff!* *Macrae!* ad vias prope Pedras provinciæ Rio Janeiro et in aquaticis orientalibus et in sylvis cæduis ad Itajurù provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. Kunth., *Hooker, St. Hilaire, Mus. Soc. Hort. Lond. et Mus. Reg. Monac.*)

Affinis *H. lantanæfoliæ*, a qua differt foliis petiolatis et bracteis omnibus lineari-subulatis. Folia 1-1½-pollicaria.

§ 4. LATIBRACTEATÆ. *Capitula semiglobosa. Bracteæ lato-ovatae. Calyces glabri vel pubescentes, dentibus subulatis.*

79. *H. PETIOLARIS* (Pohl Ic. ined.), herbacea erecta, caule glabriusculo angulis scabro-hispidis, foliis longe petiolatis late ovatis acutis duplicato-serratis glabris vel supra scabro-hispidis, capitulis longe pedunculatis subglobosis dense multifloris, bracteis ovatis acutis venosis ciliatis subglabris capitulum æquantibus, calycis glabriusculi dentibus lanceolato-subulatis rigidis tubum æquantibus.

Hab. in Brasilia: ad Aldega Maria provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

80. *H. LANTANÆFOLIA* (Poit. ! Ann. Mus. Par. 7. 468. t. 29. f. 1), herbacea villosa, foliis subsessilibus ovatis oblongisve serrato-crenatis basi angustatis rugosis subtus tomentosis, capitulis globosis dense multifloris longe pedunculatis, bracteis ovatis acuminatis exterioribus latissimis calyce sublongioribus, receptaculo villoso, calycis basi pubescentis dentibus lanceolato-subulatis acutis rigidis subspinosus.

Hab. in America æquinociali: in aridis Montis Cocollar Novæ Andalusie *Humboldt et Bonpland!* in Panama *Cuming!* Nova Hispania *Moçino et Sessé!* insulis Trinitatis *Lockhart!* et Porto Rico *Parker!* in Brasilia in herbidis ad Rio Teffe provinciæ Rio Negro et secus fluvium Amazonum *Martius!* in paludibus prope Taubate provinciæ Sancti Pauli, ad apicem montis Morro da Mondo Velho dicti inter Minas Novas, in collibus siccis prope Formiga in campis meridionalibus prope Fazenda de San Miguel e Almas et alibi provinciæ Minas Geraes *A. de St. Hilaire!* (h. s. sp.)

Caulis basi repens, radicans. Rami adscendentes, plus minusve pubescentes, apice sæpe dense tomento canescente villosi. Folia 1-1½-pollicaria, acutiuscula, supra pubescentia vel hispida, subtus tomento canescente vel rufescente dense villosa. Pedunculi 2-3-pollicares. Bracteæ exteriores latæ, adpressæ, concavæ, extus tomentosæ, intus pubescentes. Calycis dentes parum inæquales, demum sæpe subpatentes, tubus fructifer parum acutus. Faux intus annulo pilorum brevium munita. Corolla calyce vix longior, "alba, labio superiore maculis purpureis leviter punctato" (*St. Hil.*). Genitalia breviter exserta.

81. *H. ATRORUBENS* (Poit. ! Ann. Mus. Par. 7. 466. t. 27. f. 3), caule reptante basi radicante, ramis adscendentibus piloso-pubescentibus, foliis petiolatis ovatis crenatis basi rotundato-cuneatis supra hispidulis subtus pallidis glabris pilosisve, capitulis pedunculatis globosis dense multifloris, bracteis lato-ovatis membranaceis venosis capitulo vix brevioribus, calycis membranacei tubulosi truncati dentibus subulatis strictis.

H. procumbens Schiede et Deppe! in *Linnæa*, 5. 101.

Hab. in Americæ æquinocialis umbrosis et locis olim cultis in Mexico *Moçino et Sessé!* ad Hacienda de la Llaguna *Schiede et Deppe!*

May 1833.

in ins. Martinica *Sieber* ! Sancti Dominici *Bertero* ! Trinitatis *Lockhart* ! Sancti Vincentii *Guilding* ! in Cayenna *Richard* ; in sylvis ad Para *Martius* ! Maranhao *Martius* ! G. Don ! Bahia *Saltzmann* ! (*h. s. sp.*)

Undique pilis longis albidis patentibus vel versus apicem caulis adpressis plus minusve hirsuta. Radix perennis. Caules basi purpurascens, ramis elongatis. Folia pollicaria, subtus pallida. Capitula fructifera semipollicem diametro, pedunculis pollicaribus et ultra. Bracteae exteriores obtusae, interiores subulato-acuminatae, uti pedunculi et interdum calyces rubescentes. Calycis faux inter dentes margine ciliata. "Corolla alba, tubo compresso superne dilatato, laciniis 2 supremis punctis minutis roseis irroratis, lateralibus reflexis, infima oblonga pallide fusca extus pubescente. Filamenta inferne pubescentia. Antherae flavo-fuscae" (*Mart.*).

§ 5. MARRUBIASTRÆ. Capitula demum globosa. Bracteae lineares. Calyces campanulati basi membranacei glabri superne saepius villosi, dentibus lanceolato-subulatis. Folia plus minusve sinuata.

82. *H. mollis* (Pohl Ic. ined.), herbacea rufo-villosa, foliis breviter petiolatis ovatis obtusis irregulariter serrato-crenatis basi rotundatis cuneatis subcordatisve utrinque pilis rufis adpressis molliter villosis, pedunculis villosis capitulo subgloboso dense multifloro æqualibus, bracteis lanceolato-linearibus obtusis capitulum æquantibus, receptaculo piloso, calycis campanulati ore villosissimo dentibus lanceolato-subulatis tubo brevioribus.

Hab. in Brasilia : ad Santa Cruz ad Joay Dias et inter Capao et Alferes Milichar provinciæ Minas Geraes *Pohl* ! (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et St. Hil.*)

Caules circiter bipedales, parum ramosi, uti folia et capitula pilis articulatis mollibus rufescentibus dense vestiti. Folia 1-1½-pollicaria, mollia, rugosa, subtus venosa, margine nunc simpliciter crenata, saepius subsinuata, crenaturis acutiusculis, floralia minora. Capitula pauca, ad apices caulium thyrsoido-paniculata, sub anthesi hæmisphærica, fructifera globosa. Pili receptaculi caulinis similes. Calyx membranaceus, basi attenuatus glaber, superne villosissimus, dentibus brevibus acutis erectis.

83. *H. marrubiastra* (Pohl Ic. ined.), herbacea, caule erecto rufo-pubescente, foliis breviter petiolatis lato-ovatis irregulariter dentatis subsinuatis basi rotundato-cordatis utrinque villosis, pedunculis villosis capitulo subgloboso dense multifloro longioribus, bracteis oblongo-linearibus acutis capitulo longioribus, calycis membranacei glabriusculi dentibus subulatis villosis tubo longioribus.

Hab. in Brasilia : ad Ourofino provinciæ Goyaz *Pohl* ! versus Cochabamba Peruvianorum *Hænke* ! (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Affinis *H. angulosæ* et *sinuatæ* ; sed petiolis brevibus, foliis villosis minoribus vix sinuatis, et præsertim dentibus calycinis distincta.

84. *H. angulosa* (Schott MSS. Pohl Ic. ined.), herbacea, caule erecto superne rufo-villoso, foliis petiolatis ovatis acutis subhastatis inciso-serratis vel irregulariter sinuato-lobatis basi rotundato-truncatis supra sparse subtus ad nervos villosis vel demum glabratibus, pedunculis villosis capitulo subgloboso dense multifloro brevioribus, bracteis lanceolato- vel oblongo-linearibus exterioribus capitulum vix superantibus, receptaculo nudo, calycis campanulati glabriusculi dentibus brevibus lanceolatis demum stellato-patentibus.

Hab. in Brasilia: ad Rio de Janeiro *Schott! Langsdorff!* ad ripas prope Itajurù provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. Kunth., St. Hil. et Mus. Cæs. Reg. Bras. Vind.)

Caulis pluripedalis, obtuse tetragonus, sulcatus, pilis sparsis rufis plus minusve obsessus. Folia 2-4-pollicaria, superiora gradatim angustiora et minora, omnia vero capitulum longe superantia. Pedunculi vix semipollicares. Capitulum fructiferum diametro 6-7 lin. exacte globosum. Bracteæ demum reflexæ, calyces fructiferos vix æquantes, juniores radicales capitulum breviter superantes. Achenia lævia.

85. *H. SINUATA* (Pohl Ic. ined.), herbacea, caule erecto glabro, foliis petiolatis amplis lato-ovatis acutis sinuato-lobatis crenatis basi truncatis subcordatisve supra sparse subtus ad nervos hispidulis, pedunculis glabriusculis capitulum subglobosum dense multiflorum æquantibus, bracteis lanceolato- vel oblongo-linearibus capitulo subduplo longioribus, receptaculo subnudo, calycis campanulati dentibus lanceolato-subulatis demum substellato-patentibus.

Hab. in Brasilia: ad Santa Cruz provinciæ Goyaz *Pohl!* in herbidis udiusculis deserti versus Contendas provinciæ Minas Geraes *Martius!* ad rivulum inter Capiworhy et Chapada provinciæ Minas Novas *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Affinis *H. angulosæ*, sed elatior, caulis glabrior, folia ampliora latiora, pedunculi longiores, bracteæ etiam in capitulo fructifero radiantes calycem longe superantes, calyces extus superne pilosiusculi, dentibus parum longioribus acutioribus erectioribus.

§ 6. GENUINÆ. Capitula demum globosa. Bracteæ lanceolatae. Calyces tubulosi vel campanulati post anthesin sæpius elongati subglabri, dentibus subulatis glabris.

86. *H. LAPPACEA* (Benth. in Herb. Berol. MSS.), herbacea erecta, ramis glabris vel adpresso-pubescentibus, foliis petiolatis oblongo-lanceolatis acuminatis irregulariter serratis basi angustatis rugosiusculis utrinque pubescentibus, capitulis demum globosis dense multifloris breviter pedunculatis in apice ramorum subcorymbosis, bracteis lanceolatis acuminatis calyces subæqualibus, calycis campanulati dentibus basi lanceolatis rigide subulato-aristatis.

Hab. in Brasilia: in provincia Entre Rios *Parker!* in pascuis humidis a San Jose provinciæ Rio Grande ad Santa Borja Missionis Uruguayensis *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. Parker et St. Hilaire.)

Caulis erectus, ramosus, acute tetragonus, angulis sæpius pubescentibus, faciebus demum glabris. Folia 1-3-pollicaria, utrinque angustata, serraturis acutis valde inæqualibus, juniora cano-villosa, omnium venæ subtus valde prominentes. Capitula pauca, in apices ramorum glomerata, vel paria 2-3 secus caulem remota. Bracteæ hispidulæ. Calyces breviter pubescentes, dentibus glaberrimis. Corolla calycem vix excedens, alba, labio superiore purpurascens. Genitalia subexserta. Affinis *H. radiatæ*, sed differt foliis acutis serratis et bracteis dentibusque calycinis longioribus, et aliis notis.

87. *H. INVOLUCRATA*, herbacea erecta glabra vel tenuiter pubescens, foliis sessilibus ellipticis lanceolatisve acutis serratis basi cordatis, pedunculis capitulo semigloboso dense multifloro longioribus, bracteis lato-lanceolatis acutis capitulum longe superantibus, recep-

taculo nudo, calycibus campanulatis pubescentibus, dentibus subulatis tubum æquantibus.

Hab. in Mexico : ad Saltepec *Karwinski!* (v. s. sp. in herb. Mus. Reg. Monac.)

Species affinis *H. capitata*, *radiata*, etc. sed foliis et bracteis distinctissima. Folia flaccida, 3-5-pollicaria, sæpe ternatim verticillata, utrinque glabra vel juniora pubescentia. Capitula ad apicem caulis longiuscule pedunculata, fructifera circiter pollicem diametro. Bracteæ foliaceæ, basi dilatatae, 8-10 lin. longæ. Calyces fere *H. lappaceæ*.

88. *H. LAPPULACEA* (Mart. MSS.), herbacea adscendens glabra vel pubescens, foliis petiolatis oblongo-ovatis acutis serratis basi cuneatis vel angustatis, pedunculis capitulo semigloboso dense multifloro longioribus, bracteis lanceolatis linearibusve capitulum æquantibus, calycis fructiferi campanulati dentibus subulatis rigidis glabris tubo longioribus.

Hab. in Brasilia : in sylvaticis udis umbrosis prope Guaratinguã provinciae Sancti Pauli et ad viam publicam Paulinam provinciae Rio Janeiro *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Folia fere *H. capitata*, sed minus incisa. Capitula *H. lappaceæ*. A *H. brevipedæ* differt pedunculis triplo longioribus.

89. *H. RAMOSA* (Pohl Ic. ined.), erecta glabra, foliis petiolatis oblongo-ovatis inciso-serratis vel irregulariter sinuato-dentatis basi integerrimis cuneatis vel angustatis, pedunculis capitulo dense multifloro longioribus, bracteis lanceolato-linearibus obtusis capitulum superantibus, calycis tubuloso-campanulati dentibus lanceolato-subulatis rigidis tubo brevioribus.

Hab. in Brasilia : ad Fazenda Allegres provinciae Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

90. *H. INAMÆNA*, herbacea erecta glabra, foliis subsessilibus lato-ovatis obtusiusculis crenatis basi cuneato-angustatis, capitulis paucis longe pedunculatis globosis dense multifloris, bracteis lanceolatis obtusis capitulum æquantibus, receptaculo nudo, calycibus glabris tubulosis, dentibus lanceolato-subulatis tubo brevioribus.

Hab. in Brasilia : in campis ad Rio Doce *Pr. Maximilian von Neuwied!* (v. s. sp. in herb. *Martius*.)

A *H. capitata* differt glabritie, foliis sessilioribus latioribus, et dentibus calycinis basi lanceolatis. Planta inelegans, habitu Compositarum *Verbesinis* affinium.

91. *H. CAPITATA* (Jacq. Ic. Rar. 1. t. 114), herbacea erecta glabriuscula, foliis petiolatis oblongo-ovatis inciso-serratis basi integerrimis cuneatis vel angustatis utrinque glabris vel pilis raris hispidulis, pedunculis capitulo globoso dense multifloro longioribus, bracteis ovato-lanceolatis linearibusve capitulo fructifero brevioribus, receptaculo nudo, calycis fructiferi elongati tubulosi truncati dentibus subulatis strictis tubo demum brevioribus.

Sideritis, &c. *Sloan. Nat. Hist. Jam.* 1. 174. t. 109. f. 2.

Clinopodium rugosum. *Linn. Sp.* 822 (*ex Jamaica*).

Clinopodium capitatum. *Sw. Prod. Fl. Ind. Occid.* 88.

Hyptis capitata. *Poit. Ann. Mus. Par.* 7. 464. t. 27. f. 1.

Hab. in America æquinotiali : in Mexico in dumetis apricis ad Hacienda de la Llaguna *Schiede et Deppe!* ad Panama *Cuming!* in ins. Jamaica *Mac Fadyen!* et alibi in India occidentali ! in Demerara

Parker! occurrit etiam in ins. Manilla *Chamisso!* verosimiliter ex America allata. (*h. s. sp.*)

Herba 2-3-pedalis, sæpissime glabra. Caules obtuse tetragoni. Folia inferiora sæpe plus 3 poll. longa. Pedunculi 2-3-pollicares. Capitula fructifera valde aucta, pollicem diametro. Bracteæ calycem æquantes vel paullo superantes, sed in capitulo fructifero in pedunculum reflexæ, a calycibus valde auctis fere occultatæ sunt. Calyces fere constanter glabri, membranacei, dentibus tubo demum triplo brevioribus. Achenia uti in speciebus affinibus oblonga, obtusa, subcompressa, nigra, lævia.

92. *H. brevipes* (Poit. ! Ann. Mus. Par. 7. 465), caule basi glabriusculo superne pubescente, foliis petiolatis ovato-oblongis lanceolatisve acutis irregulariter serratis basi angustatis supra hispidulis subtus vel rarius utrinque glabriusculis, pedunculis capitulo globoso dense multifloro brevioribus vel vix longioribus, bracteis lanceolato-linearibus acutis capitulum subsuperantibus, calycis pubescentis truncati dentibus erectis subulatis strictis tubo sublongioribus.

H. globifera. Meyer *Fl. Esseq.* 207 ? *

H. acuta. Benth. ! in *Linnæa*, 6. 82.

β glabrior dentibus calycinis rigidioribus obtusioribus.

H. radiata. Humb. et Kunth ! Nov. Gen. et Sp. Am. 2. 318, et Auct. alior. quoad exempl. Austro-Americana.

Hab. in America æquinotiali: in Mexico in pratis prope Mesachica regionis calidioris *Schiede et Deppe*; in ins. Jamaica *Fludyer!* et St. Vincentii *Guilding!* in sylvis humidis plantationis Hamburg Essequibensis *Meyer*; in vasta planitie Caracasana inter urbem Calabozo et flum. Orinoco *Humboldt et Bonpland!* in Brasilia ad Rio Maranhao provinciæ Goyaz *Pohl!* in campis siccis in sylvis Catingas provinciæ Bahiensis et in herbidis ad flumen Taparà provinciæ Rio Negro *Martius!* ad rivulos circa Rio Janeiro *A. de St. Hilaire!* *Sello!* et in ins. Philippinis *Commerson!* Manilla *Chamisso!* et Cælebes Archipelagi Indici *Lesson!* (verosimiliter ex America allata): β in Demerara *Parker!* in ripa obumbrata Orinoci juxta Carichana et confluentem Apures *Humboldt et Bonpland!* ad Bahiam *Salzmann!* † (*h. s. sp.*)

* “*H. floribus capitatis, pedunculo internodio multoties brevior, bracteis lanceolatis calycem fructiferum superantibus, foliis ovalibus utrinque acuminatis.*

“*Suffrutex. Caulis tripedalis, ramosus, tetragonus, scaber, inferne lævis. Folia opposita, ovalia, acuminata, basi longe attenuata, pollices 5-6 longa, 1½-1¾ lata, inæqualiter serrata, utrinque imprimis subtus scabra. Pedunculi axillares, internodio 3-4-plove breviores, pollicares, ut involucria et calyces pubescentes. Florum capitula subrotunda, Pruni spinosi fructibus minora. Involucris foliola lanceolata, calyce fructifero paullo longiora, integerrima. Calyx tubulosus, rectus, 10-striatus, venis raris transversalibus elevato-reticulatus, dentibus subulatis rectis. Corolla alba, labio superiore obtuso emarginato, inferiore trifido, laciniis deflexis, intermedio lateralibus duplo majore calceiformi emarginato. Semina oblonga, obtusa, nigra. Differt ab *H. capitata* pedunculis internodiis multoties brevioribus, bracteis calyce fructifero longioribus, capitulis minoribus, calycis laciniis non obtusis sed subulatis.” — Meyer l. c.*

In stating the above differences, Meyer had probably my *H. brevipes* β , and not the true *H. capitata*, in view, as in the latter also the teeth of the calyx are subulate.

† I had collected various other habitats from different Herbaria for this and the *H. capitata*; but as I have now some difficulty in ascertaining to which they should be referred, and as they are none of them far distant from some of those given above, I have omitted them.

Caulis erectus, tetragonus, sulcatus, angulæ pilis adpressis pubescentes demum glabratae. Folia bi-tripollicaria, nervi paginæ inferioris sæpe hispidi. Pedunculi semipollicares. Capitula magnitudine *Cerasi*. Bracteæ numerosissimæ, interiores subulatae calycesque pilis brevibus patulis ciliato-pubescentes. Corollæ vix calyce longiores.

When young this species is difficult to distinguish from the *H. capitata*. It is usually more hairy, the leaves narrower, and the peduncles shorter. When in fruit it is easily known by its heads scarcely half an inch in diameter, the tube of the calyx remaining shorter than the teeth, instead of being so much elongated as in *H. capitata*. From the *H. radiata*, which this species also resembles, it differs by the teeth of the calyx, which are subulate, instead of being short, rigid, and lanceolate at the base. The var. β appears to be almost an intermediate state between the three species. Most of the specimens before me are in flower only; but from a single one, which is more advanced, as well as on account of the general habit and geographical station of the other specimens I have seen, I have referred this variety rather to the *H. brevipes* than to either of the other species.

93. *H. GAUDICHAUDI* (Benth. in Linnæa, 6. 77), herbacea sub-erecta glabra vel tenuissime pubescens, foliis petiolatis ovatis acutis irregulariter serrato-crenatis subincisisve basi rotundatis cuneatis vel supremis angustatis supra hispidulis subtus glabriusculis, pedunculis capitulo globoso dense multifloro subbrevioribus, bracteis lanceolatis capitulum subæquantibus, calycis submembranacei tubulosi dentibus linearibus erectis tubo multoties brevioribus.

Hab. in Brasilia: in herbidis ad Rio Janeiro *Gaudichaud!* *Chamisso!* *Forbes!* *Cayley!* *Pohl!* *Martius!* &c. (*h. s. sp.*)

Habitus et folia *H. capitata*, sed minor. Capitula etiam fructifera vix ultra 5 lin. diametro. Dentes calycini breviores, basi inter sese approximati et latiores.

94. *H. LANCEOLATA* (Poir. ! Dict. Suppl. 3. 114), glabriuscula, foliis petiolatis oblongo-lanceolatis linearibusve utrinque angustatis remote serratis basi integerrimis, pedunculis capitulo globoso dense multifloro brevioribus, bracteis exterioribus oblongo-lanceolatis obtusiusculis capitulo longioribus, calycis glabriusculi fructiferi elongati truncati dentibus subulatis strictis tubo brevioribus.

Hab. in Brasilia: ad Maranhao *G. Don!* (*v. s. sp. in herb. Mus. Soc. Hort. Lond. et Lindley.*)

Habitus *H. lanceæfoliæ*, sed ab hac et a *H. radiata* differt præcipue calyce fructifero membranaceo, ore truncato, dentibus subulatis minime spinosis; a *H. brevipedæ* glabritie et foliis longioribus frequenter 4-5-pollicaribus; a *H. capitata* foliis angustioribus et capitulis dimidio minoribus; a *H. Gaudichaudi* foliis elongatis et dentibus calycinis subulatis. Caules erecti, pedales, tetragoni, angulis acutis glabris vel breviter pubescentibus. Pedunculi 3-4 lin. longi. Capitula fructifera semipollicem diametro. Calyces sæpius glabri, rami pilis paucis brevissimis pubescentes.

95. *H. LONGIFOLIA* (Pohl Ic. ined.), caule erecto pubescente, foliis petiolatis oblongo-lanceolatis acuminatis irregulariter dentatis basi angustatis supra glabris subtus villosiusculis, pedunculis capitulo dense multifloro longioribus, bracteis linearibus capitulum superantibus, calycis tubuloso-campanulati dentibus subulatis tubo longioribus.

Hab. in Brasilia: ad Rio Trahiras et in Serra San Feliz provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Species vix a *H. lacustri* distincta videtur.

96. *H. LANCEÆFOLIA* (Schum. ! Pl. Guin. in Act. Acad. Hafn. 1829. 4. p. 35), caule herbaceo pubescente, foliis breviter petiolatis oblongo-lanceolatis acutiusculis grosse serratis basi angustatis integer-

rimis hispidulis, pedunculis capitulo globoso dense multifloro brevioribus, bracteis lanceolatis obtusis capitulum subæquantibus, calycis ovati subinflati dentibus lanceolato-subulatis rigidis erectis.

Hab. in Africa æquinociali verosimiliter ex America allata: in paludibus Gambiæ prope Albuda *Le Prieur!* (v. s. sp. in herb. Acad. Reg. Hafn. et Delessert.)

Caulis basi procumbens, adscendens, obtuse tetragonus, undique pubescens. Folia $\frac{1}{2}$ -3 poll. longa, supra tenuiter hispidula, subtus punctulata, nervis hispidis, floralia conformia. Pedunculi remoti, hispido-villosi. Bracteæ pubescentes, calyce florifero longiores, fructiferum subæquantes. Calyces pallide pubescentes, ore æquali, fauce intus nuda, dentibus basi lanceolatis erectis rigidis subulato-mucronatis tubo fructifero brevioribus. Corolla calycem vix excedens.

I suspect this is the *H. lacustris*, and that it has travelled over to Africa from Brazil; but as I have seen the specimens of the two plants at a considerable interval of time, and my notes of the one do not exactly coincide with the characters of the other, I have been obliged to leave them as two distinct species.

97. *H. LACUSTRIS* (St. Hil. MSS.), glabra, foliis petiolatis oblongo-lanceolatis vel infimis ovatis acuminatis irregulariter serrato-crenatis basi angustatis utrinque glabris, pedunculis capitulo globoso dense multifloro longioribus, bracteis lanceolatis obtusis capitulum subæquantibus, calycis fructiferi membranacei tubulosi dentibus linearibus tubo brevioribus supremo latiori.

Hab. in Brasilia: in aquaticis prope Lorena, Pendamonhongaba, &c. provinciæ Sancti Pauli *Martius!* in humidis prope lacum das Conchas provinciæ Rio Grande do Sul. *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Habitus *H. lanceolatae*, sed pedunculi longiores (circiter pollicares), et ab omnibus affinibus differt dentibus calycinis, quorum superiores longiores sunt, et ideo hæc species ad sectionem *Plagiotis* approximatur.

98. *H. HOMALOPHYLLA* (Pohl Ic. ined.), ramis rufo-hirsutis, foliis breviter petiolatis oblongis vel oblongo-lanceolatis obtusis basi cuneatis angustatisve crenatis rugosis villosis, capitulis brevissime pedunculatis semiglobosis dense multifloris, bracteis lanceolatis calycem æquantibus, calycis tomentosi fructiferi elongati basi inflati dentibus brevissimis lanceolatis acutis.

Hab. in Brasilia: in campis elevatis provinciæ Minas Geraes vulgaris *A. de St. Hilaire!* ad Villa Rica ejusdem provinciæ *Pohl!* in Brasilia meridionali *Sello!* (h. s. sp. comm. a cl. Otto et v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.)

Affinis *H. hirsuti*, sed calycibus et inflorescentia ad hanc sectionem referenda. Caules numerosi, 1-1½-pedales. Capitula per anthesin hæmisphærica, depressa, fructifera calycibus valde elongatis fere globosa. "Corollæ albæ, purpureo-punctatæ" (*St. Hil.*). Achenia sub lente punctato-rugosa.

§ 7. BRACHYDONTES. Capitula semiglobosa demum vix globosa. Bracteæ ovatæ vel lanceolatæ. Calyces campanulati, dentibus abbreviatis ovatis obtusis.

99. *H. OBTUSIFLORA* (Presl MSS.), suffruticosa? ramis adpresso-pubescentibus, foliis petiolatis ovatis vel oblongo-lanceolatis obtusiusculis crenatis basi angustatis utrinque hispidulis vel demum glabratibus, pedunculis capitulo subgloboso dense multifloro brevioribus, bracteis

ovatis striatis capitulum æquantibus, calycis campanulati dentibus abbreviatis ovatis obtusis.

Hab. in Peruvia : in Monte Huanuco *Hænke* (*h. s. sp. comm. a cl. Presl, et a cl. Kunze ex collect. Pöppigiana.*)

Pili ramorum juniorum et foliorum paginæ inferioris rufescunt. Folia inferiora ovata et basi in petiolum longe angustata, suprema anguste lanceolata. Florum capitula 4-5 lin. diametro, juniora depressa, demum fere globosa. Calyces pubescentes. Corollæ vix calycem excedentes.

100. *H. PARKERI*, caule superne pubescente, foliis sessilibus oblongo-ellipticis vel oblongo-linearibus acutis grosse serratis basi angustatis nervosis glabriusculis, pedunculis folio longioribus, capitulis globosis dense multifloris, bracteis lanceolato-linearibus obtusis capitulo sublongioribus, calycis glabri campanulati dentibus ovatis abbreviatis obtusis subpatentibus.

Hab. in America meridionali : ad Demerara *Parker* ! (*v. s. sp. in herb. Parker et Hooker.*)

Caulis herbaceus, basi glaber, superne uti pedunculi adpresso-pubescent. Folia pollicem longa, 3-4 lineas lata. Pedunculi 1-2 poll. longi. Achenia triquetra, truncata, lævia.

§ 8. *XYLODONTES*. *Capitula semiglobosa. Bracteæ lanceolatæ vel lineares apice subulatæ vel acutissimæ. Calyces campanulati, dentibus basi lanceolatis subulatis rigidis glabris plerumque subspinosi.*

101. *H. RADIATA* (Willd. Sp. Pl. 3. 84), glabra herbacea, foliis petiolatis ovato-lanceolatis acuminatis crenatis basi cuneatis vel angustatis, capitulis globosis dense multifloris pedunculatis, bracteis oblongo-lanceolatis obtusis capitulo longioribus, calycis campanulati dentibus lanceolato-subulatis acutis rigidis subspinosi.

Clinopodium rugosum. Linn. Sp. 822 (*ex Carolina*). Dill. Hort. Elth. 1. 88. t. 75. f. 86.

H. radiata. Poit. Ann. Mus. Par. 7. 466. t. 27. f. 2.

Hab. in Americæ borealis regione meridionali : in Carolina ! in Alabama, Novo Aureliano et Louisiana *Drummond* ! et ad Hacienda de la Llaguna *Schiede et Deppe* ?* (*h. s. sp.*)

Caules 1-2-pedales, erecti, ramosi, acute tetragoni. Folia 1-3-pollicaria, utrinque sæpius angustata sed obtusa et obtuse irregulariter crenata, omnia utrinque glabra, petiolo subdilatato. Capitula remote subracemosa. Bracteæ glabræ, numerosæ, exteriores sæpe apice denticulatæ. Calyx fructifer parum elongatus, dentibus tubo brevioribus. Affinis *H. angustifoliæ* et *H. capitatæ* ; a priore glabritie, foliis, &c. differt, a posteriore calyce non truncato et dentibus basi lanceolatis nec subulatis.

102. *H. RUBIGINOSA* (Benth. in Herb. Berol. MSS.), suffruticosa, ramis divaricatis rubiginoso-tomentosa, foliis breviter petiolatis ovato-oblongis obtusissimis serrato-crenatis basi cuneatis, capitulis semiglobosis dense multifloris brevissime pedunculatis, bracteis exterioribus lato-ovatis capitulum subsuperantibus, calycis villosi dentibus suberectis lanceolato-subulatis rigidis.

Hab. in Brasilia : ad Caretao provinciæ Goyaz *Pohl* ! in campis

* I have not seen these specimens, but they are probably referable to the *H. brevipes* β.

inter flum. San Francisco et Rio das Velhas et in Serro Frio provinciæ Minas Geraes *Martius!* in subalpestribus meridionalibus ejusdem provinciæ vulgaris et in summitate montis Morro do Mondo Velho inter Minas Novas *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.*)

Suffrutex 2-2½-pedalis. Rami elongati, brachiati, ramosi, subteretes, tomento brevi rubiginosi. Folia 1½ poll. longa, 6-9 lin. lata, supra tenuiter pubescentia, subtus tomentosa, utrinque rugosa, uti tota planta rubiginosa. Pedunculi vix petiolo longiores. Calyx campanulatus, dentibus subspinescentibus tubo brevioribus. "Corolla alba, punctis purpureis notata. Ovarii lobi apice pilosi" (*St. Hil.*). Receptaculum villosum.

103. *H. LUTESCENS* (Pohl Ic. ined.), herbacea procumbens? rubiginoso-villosa, foliis breviter petiolatis ovatis obtusis serrato-crenatis basi cuneatis supra scabridis subtus rufo-pubescentibus, capitulis semiglobosis dense multifloris brevissime pedunculatis, bracteis ovato-lanceolatis capitulum subsuperantibus, calycis glabriusculi dentibus suberectis lanceolato-subulatis rigidis tubum subæquantibus.

Hab. in Brasilia: ad Megaponte provinciæ Goyaz *Pohl!* in campis ad Villa de Campanha et alibi provinciæ Minas Geraes et in campis sicciusculis ad Santo Antonio das Quemadas provinciæ Bahiensis *Martius!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.*)

Affinis *H. rubiginosæ*, sed vix cum ea conjungenda. Major est; caulis dense rufo-villosus; folia majora, latiora, supra scabra, raro villosa; capitula majora, sessiliora, plerumque glabriora; bracteæ numerosiores, laxiores; dentes calycini longiores.

104. *H. AFFINIS*, erecta? rufo-tomentosa, foliis breviter petiolatis ovatis obtusiusculis basi angustatis rugosis, capitulis semiglobosis dense multifloris superioribus subpaniculatis, pedunculis capitulo subbrevioribus, bracteis ovatis acutis capitulum subæquantibus, calycis campanulato-villosi dentibus lanceolato-subulatis rigidis apice glabratis.

Hab. in Peruvia *Ruiz et Pavon!* verosimiliter ex regione Quitensi a *Tafalla* lecta, ad Cochabamba? Peruvix *Hænke!* (*v. s. sp. in herb. Lambert et Mus. Reg. Monac.*)

Affinis *H. rubiginosæ*, sed differt caule erectiore; foliis acutioribus, rugosioribus, tomento densiore rufo-villosis. Pedunculi petiolo demum duplo triplove longiores.

105. *H. FERRUGINOSA* (Pohl Ic. ined.), adscendens dense rubiginoso-tomentosa, foliis breviter petiolatis rotundatis obtusissimis crenatis basi truncatis subcordatisve crassissimis rugosis supra hispidis subtus tomentosis, capitulis semiglobosis dense multifloris inferioribus pedunculatis supremis subsessilibus, bracteis exterioribus ovatis acutis calyce brevioribus, calycis villosi dentibus suberectis lanceolato-subulatis rigidis.

Hab. in Brasilia: ad Rio Pillōcas provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Vind. Bras.*)

H. rubiginosæ affinis, sed caulis crassior, validior, magis tomentosa, et præsertim folia lato-ovata vel rotundata, crassissima et dense rubiginosa. Capitula pauca, suprema sæpe subspicata, fructifera semipollicem diametro. Pedunculi infimi semipollicem longi. Bracteæ numerosæ, adpressæ, uti calyces ferrugineo-villosæ. Calycis dentes tubo breviores. Achenia nigra, oblonga, apice leviter hispida.

106. *H. LUCIDA* (Pohl Ic. ined.), fruticosa glabra, foliis subses-

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silibus ovalibus acutiusculis vix dentatis basi cuneato-rotundatis coriaceis rigidis supra lucidis subtus venosis floralibus capitulum æquantibus, capitulis ovoideis demum semiglobosis dense multifloris, bracteis lanceolatis rigidis capitulum æquantibus, calycis villosi dentibus lanceolato-subulatis rigidis glabriusculis.

Hab. in Brasilia: ad Serra Chrystais provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

107. *H. PROTEOIDES* (St. Hil. MSS.), fruticosa? erecta rigida, ramis breviter rufo-tomentosis, foliis brevissime petiolatis lato-ovatis obtusis crenatis basi rotundato-subcordatis coriaceis rigidis supra lucidis subtus ad venas pubescentibus, capitulis paucis subcorymbosis pedunculatis semiglobosis dense multifloris, bracteis lanceolatis apice dentibusque calycinis subulatis rigidis glabris lucidis.

Hab. in Brasilia *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Folia 1-1½-pollicaria. Pedunculi vix pollicares. Capitula pollicem diametro purpurascentia. Corollæ vix dentes calycinos excedentes, extus villosissimæ.

108. *H. CORDATA* (Pohl Ic. ined.), herbacea rufo-villosa, foliis subsessilibus ovato-rotundatis obtusissimis crenatis basi rotundato-subcordatis rugosis supra scabro-hispidis subtus ad nervos rufo-villosis, capitulis pedunculatis semiglobosis dense multifloris, bracteis lanceolatis integerrimis capitulum æquantibus, calycis glabriusculi dentibus lanceolato-subulatis suberectis rigidis tubum subæquantibus.

Hab. in Brasilia: ad Arrayul Tahiras provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

109. *H. REMOTA* (Pohl Ic. ined.), herbacea elata breviter rufo-villosa, foliis breviter petiolatis lato-ovatis obtusissimis crenatis basi rotundato-cuneatis rugosis supra scabridis subtus ad nervos rufo-villosis, capitulis pedunculatis semiglobosis dense multifloris subproliferis, bracteis ovatis integerrimis acutis capitulum æquantibus, calycis basi villosi dentibus lanceolato-subulatis suberectis rigidis glabris tubum subæquantibus.

Hab. in Brasilia: ad Paracatu in Serra Santa Isabel provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

H. cordatæ valde affinis et forsan mera varietas, sed in speciminibus suppetentibus folia omnia petiolata et angustiora, et planta tota glabrior elatior.

110. *H. VILLOSA* (Pohl Ic. ined.), herbacea? dense rufo-villosa, foliis sessilibus rotundatis obtusissimis crenatis basi rotundato-cordatis crassissimis rugosis supra scabro-hispidis subtus rufo-villosis, capitulis semiglobosis dense multifloris pedunculatis, bracteis exterioribus lato-ovatis foliaceis dentatis calycem superantibus, calycis villosi dentibus erectis rigidis glabriusculis calyce sublongioribus.

β *reticulata* (Pohl Ic. ined.)

Hab. in Brasilia: ad Olho d'Agua provinciæ Goyaz et β ad Padrociño provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Caulis bipedalis, uti pedunculi crassus rigidus et villis patentibus rufis dense obsessus. Bracteæ dense imbricatæ, exteriores villosissimæ, constanter denticulatæ. Var. β non differt nisi caule humiliore, foliis magis reticulato-rugosis, et capitulis majoribus.

111. *H. ORBICULATA* (Pohl Ic. ined.), herbacea? rufo-villosa, foliis sessilibus rotundatis obtusissimis basi rotundato-cordatis rugosis supra scabro-hispidis subtus pubescentibus, capitulis sessilibus subglobosis dense multifloris, bracteis ovato-lanceolatis integerrimis capitulum æquantibus, calycis glabriusculi dentibus lanceolato-subulatis erectis rigidis tubo longioribus.

Hab. in Brasilia: in summitatem montium Chapado do Serra San Marcos dictorum provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

112. *H. NIGRESCENS* (Pohl Ic. ined.), herbacea, procumbens? nigrescens pubescens, foliis sessilibus ovatis obtusis crenatis basi cordatis utrinque scabris subtus lacunoso-rugosis ad nervos pubescentibus, capitulis paucis brevissime pedunculatis semiglobosis dense multifloris, bracteis exterioribus ovatis obtusis rugosis capitulo brevioribus interioribus lanceolatis obtusis capitulo longioribus, calycis villosi dentibus suberectis lanceolato-subulatis rigidis.

Hab. in Brasilia: inter Rio Corumba et Rio San Marcos provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

113. *H. COMPLICATA* (St. Hil. MSS.), fruticosa, ramis longe sericeo-pilosis, foliis crebris sessilibus lato-rotundatis obtusis subcrenatis basi cordato-amplexicaulibus complicatis rigidis supra scabriusculis subtus lacunoso-venosis, capitulis paucis subsessilibus semiglobosis dense multifloris, bracteis lanceolatis acutis capitulum æquantibus, calycis basi pilosi dentibus lanceolato-subulatis rigidis demum subrecurvo-patentibus.

Hab. in Brasilia: in campis prope Sabará provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Habitus *H. rotundifoliæ*, sed foliis distinctissima. Rami et basis foliorum lana longa sericea vel subscariosa obtecti. Folia cæterum rufa, glabra vel subtus brevissime pubescentia, 4-5 lin. longa, subimbricata. Capitula pauca, secus ramos axillaria.

114. *H. ROTUNDIFOLIA* (Benth. in Herb. Berol. MSS.), caule fruticoso tomentoso-villoso, foliis petiolatis ovato-rotundatis crenatis basi rotundatis rugosissimis rigidis scabris utrinque subvillosis, capitulis semiglobosis dense multifloris pedunculatis supremis fastigiatis, bracteis linearibus calyce longioribus, calycis basi villosissimi dentibus lanceolato-subulatis rigidis demum subrecurvo-patentibus.

Hab. in Brasilia: in rupibus ad San João del Rey provinciæ Goyaz *Pohl!* in regione meridionali provinciæ Minas Geraes et prope montem Morro d'Andaio dictum inter Minas Novas *A. de St. Hilaire!* in Brasilia meridionali *Sello! Langsdorff!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. Mus. Cæs. Reg. Bras. Vind., &c.)

Fruticulus 1-2½-pedalis, ramosissimus, dense foliosus, ramis striatis tomentosis. Folia sæpe ternatim quaternatimve verticillata, semipollicaria vel vix pollicaria, subtus nervis valde prominentibus basi rotundatis, petiolo 2-3 lin. longo. Capituli ad apices ramorum dispositi, vix piso majores. Corolla vix calyce longior.

115. *H. MONTICOLA* (Mart. MSS.), fruticosa, ramis rubiginoso-villosis, foliis parvis petiolatis ovatis obtusis crenatis basi cuneatis coriaceis supra scabriusculis subtus reticulatis rufo-pubescentibus,

pedunculis folium subæquantibus rigidis, capitulis semiglobosis dense multifloris, bracteis lanceolatis rigidis capitulum æquantibus, calycis tubulosi basi villosi dentibus abbreviatis lanceolatis rigidis.

Hab. in Brasilia: in arenosis montosis inter Villa Rica et Santo Antonio de Casa Bianca provinciæ Minas Geraes *Martius!* in montibus Villa Rica ejusdem provinciæ et Serra Negra ad limites provinciarum Minas Geraes et Rio de Janeiro *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Frutex 5-6-pedalis, ramosissimus, ramis superioribus frequentius corymboso-fastigiatis, habitu *H. rotundifoliæ*. Folia plerumque semipollicaria, petiolo 2-lineari. Capitula fructifera semipollicem diametro, inferiora remota, superiora versus apices ramorum numerosa, subpaniculata. Dentes calycini hujus sectionis brevissimi, lati, demum subrecurvi. "Corolla carnea, pubescens. Ovarii lobi glabri" (*St. Hil.*).

116. *H. TRICEPHALA* (*St. Hil. MSS.*), suffruticosa, ramis virgatis villosis, foliis petiolatis ovato-ellipticis obtusis crenatis basi cuneato-rotundatis coriaceis supra scabris subtus rufo-pubescentibus, pedunculis folium æquantibus, capitulis semiglobosis dense multifloris, bracteis lanceolatis rigidis capitulum æquantibus, calycis tubulosi villosi dentibus lanceolatis rigidis glabris tubo parum brevioribus.

Hab. in Brasilia: ad Serra da Caraca provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Characteribus *H. monticolæ* affinis, sed caulibus elongatis $2\frac{1}{2}$ - $3\frac{1}{2}$ -pedalibus parum ramosis, foliis majoribus longioribus, et dentibus calycinis longioribus distincta.

117. *H. CONFERTA* (*Pohl Ic. ined.*), erecta elata rubiginoso-tomentosa, foliis petiolatis ovato-ellipticis obtusis crenatis basi cuneatis rugosis supra scabris subtus rubiginoso-tomentosis, capitulis pedunculatis magnis semiglobosis dense multifloris, bracteis ovatis integerrimis foliaceis villosis capitulum subsuperantibus, calycis villosi dentibus lanceolato-subulatis rigidis subpatentibus glabris tubo sublongioribus.

Hab. in Brasilia: ad Pontefeita provinciæ Goyaz *Pohl!* in campis ad aquas prope Formigao et Contendas provinciæ Minas Geraes *Martius!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Ex speciminibus et descriptione Martiana, quæ verosimiliter ad speciem Pohlianam pertinent, suffrutex est 4-pedalis et altior. Folia numerosa, 3-4-pollicaria, basi longe angustata et potius oblongo- quam ovato-elliptica. Capitula demum fere pollicem diametro, pauca, versus apices ramorum subcorymbosa. Bracteæ crassiusculæ, extus rufæ. Corollæ villosissimæ, albæ, apice roseæ.

118. *H. ALUTACEA* (*Pohl Ic. ined.*), herbacea erecta vel adscendens humilis villosa, foliis subsessilibus ovalibus obtusis crenatis basi cuneatis rugosis supra scabro-hispidis subtus villosis, capitulis longe pedunculatis magnis hæmisphæricis dense multifloris, bracteis capitulum superantibus lanceolatis exterioribus latioribus villosis, calycis villosi dentibus lanceolato-subulatis rigidis erectis tubum subæquantibus.

Hab. in Brasilia: ad Arrayul Trahiras provinciæ Goyaz *Pohl!* in campis deserti Serro Frio provinciæ Minas Geraes *Martius!* in pascuis aridis prope Uberara in regione occidentali ejusdem provinciæ *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Herba vix semipedalis, habitu *Peltodontis humilis*. Folia bipollicaria, suprema

sæpe valde approximata et quasi verticillata, subtus venis prominentibus hispidis. Pedunculi rigidi, folia subsuperantes. Capitula pollicem diametro. "Corolla carnea" (*St. Hil.*).

119. *H. FERRUGINEA*, erecta rufo-tomentosa, foliis subsessilibus oblongis serrato-crenatis basi cuneatis rugosis, capitulis globosis dense multifloris subpaniculatis, pedunculis capitulo longioribus, bracteis ovatis acutis capitulum subæquantibus, calycis campanulati dentibus lanceolato-subulatis rigidis.

Hab. in Nova Hispania *Moçino et Sessé!* (*v. s. sp. in herb. Lambert.*)

Caulis erectus, crassus, rigidus, obtuse tetragonus. Folia 2-3-pollicaria, supra breviter rufo-pubescentia, subtus tomento dense ferrugineo villosa. Pedunculi pollicares vel paullo longiores, versus apices ramorum numerosi. Capitula fere *H. lappacæ*, sed bracteæ latiores, dense villosæ.

120. *H. XANTHIOCEPHALA* (Mart. MSS.), herbacea? erecta vel adscendens glaberrima, foliis breviter petiolatis ovatis crenatis basi rotundato-cuneatis coriaceis utrinque glaberrimis supra nitidis, pedunculis rigidis compressis folio longioribus, capitulis semiglobosis dense multifloris, bracteis ovato-lanceolatis rigidis extimis cuneatis subseratis, calycis basi lanati dentibus lanceolato-subulatis rigidis glabris.

Hab. in Brasilia: in campis regionis adamantium provinciæ Minas Geraes *Martius!* (*v. s. sp. in herb. Mus. Reg. Monac.*)

Species ex specimine unico in herbario suppetente distinctissima videtur, foliis (sesquipollicaribus) nitidis, et pedunculis versus apicem compressis subulatis. Capitula magnitudine *H. confertæ* et *ferrugineæ*. Calyx basi pilis longis adpressis mollibus lanatus.

121. *H. ANOMALA*, ramis tomentoso-pubescentibus, foliis petiolatis ovatis obtusis crenatis basi rotundatis cuneatisve rugosis subtus tomentosis, capitulis semiglobosis dense multifloris breviter pedunculatis in apices ramorum subpaniculatis, bracteis ovatis acutis calyces subæquantibus, calycis campanulati dentibus basi ovatis rigide subulato-aristatis.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto.*)

In speciminibus suppetentibus folia ramealia sæpe alterna, ramo flexuoso. Caulis erectus videtur, pluripedalis, obtuse tetragonus. Folia sesquipollicaria, supra tenuissime pubescentia, subtus tomentosa, floralia parva, suprema minuta. Capitula magnitudine *Elephantopodis scabri*. Bracteæ tomentosæ, nervis rigidis notatæ. Calyces villosi, corolla vix breviores. Genitalia subexserta.

122. *H. CÆSPITOSA* (*St. Hil. MSS.*), caulibus numerosis erectis rufo-pilosis, foliis sessilibus ovatis obtusiusculis grosse et inæqualiter serratis basi rotundatis vel angustatis tenuibus subcoriaceis nervosis glabriusculis, capitulis semiglobosis dense multifloris longe pedunculatis, bracteis lanceolatis capitulum superantibus, calycis campanulati villosi dentibus basi ovatis rigide subulato-aristatis.

Hab. in Brasilia: in dumetis et campis et pascuis exaratis provinciæ Sancti Pauli *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto, et v. s. sp. in herb. St. Hil.*)

Caules complures, subsimplices, subpedales, tetragoni, sulcati, pilis longis patentibus rufis vel purpurascentibus dense vestiti. Folia pollicaria, vix rugosa, subcoriacea, glabra vel pilis raris villosa, dentibus remotis paucis inæqualibus. Capitula pauca, ad apices ramorum subcorymbosa, pedunculis erectis rigidis. Bracteæ pubescentes, nervosæ, rigidæ. Corollæ dentibus calycinis subbreviores, "carneæ" (*St. Hil.*).

SECTIO XII. POLYDESMIA.

Florum capitula sessilia subsessilia vel rarius longiuscule pedunculata, numerosa, in racemos paniculato-ramosos vel rarius simplices disposita, densa, nunc multiflora depressa vel irregulariter subglobosa, nunc ovoidea pauciflora. Bracteæ numerosæ adpressæ ovatae lanceolatae vel rarius lineares. Calyx fructifer nunc in tubum cylindricum apice truncatum auctus dentibus setaceis strictis vel rarius obsoletis, nunc (in speciebus nonnullis capitulis ovoideis) tubuloso-campanulatus dentibus lanceolatis acutis. Corollæ tubus sæpe exsertus. Herbæ suffrutesceve plerumque multifloræ.

123. *H. VESTITA* (Benth. in Herb. Berol. MSS.), caule fruticoso, ramis floccoso-tomentosis, foliis petiolatis rotundatis obtusis vel vix acuminatis eroso-crenatis basi truncato-cordatis rugosissimis utrinque villosis, capitulis sessilibus, verticillastris approximatis racemosis, racemis paniculatis, bracteis adpressis ovatis lanceolatisve obtusis calycem æquantibus, calycis fructiferi inflato-tubulosi glabrati ore truncato, dentibus obsoletis, fauce intus nuda.

Hab. in Brasilia: ad Allegres provinciæ Minas Geraes *Pohl!* in campis editioribus in Serro Frio ejusdem provinciæ *Martius!* vulgaris in sylvis cæduis ejusdem provinciæ, ad margines sylvarum in campis Geraes provinciæ Sancti Pauli, in Missionibus inter Rio Ibicuhy et Santa Borja et prope San João del Rey et alibi in Brasilia interiore *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.*)

Frutex pluripedalis. Rami obtuse tetragoni, tomento floccoso rufo-albido vestiti. Folia 2-3-pollicaria, sæpius latiora quam longa, late duplicato-crenata, crassa, subtus nervosa, utrinque tomento rufescente subvelutino vestita. Panicula semipedalis et ultra. Folia floralia parva, superiora bractæformia, uti bractæ flores sæpe superantia. Calyces per anthesin breves, campanulati, extus tomentosi, florigeri elongati, bracteas superantes, subglabri, transversim rugosi, basi subinflati, ad os contracti, dentibus brevissimis obtusis vel subnullis. Corolla cærulea, glabra, tubo vix exserto, lobis tubo æqualibus. Genitalia exserta. Achenia elongata, subcompressa, glabra, lævia.—Ab incolis Brasiliæ dicitur *Erva de Santa Anna*, *Erva do Pape*, et *Berbena*, et vulneraria habetur.

124. *H. DUPLICATO-DENTATA* (*Pohl Ic. ined.*), fruticosa, ramis subtomentosis, foliis petiolatis ovatis obtusiusculis eroso-crenatis basi rotundatis cuneatisve supra scabris subtus cano-tomentosis, capitulis sessilibus, verticillastris approximatis fasciculato-racemosis, racemis paniculatis, bracteis adpressis lanceolatis obtusis crassis tomentosis calyces subsuperantibus, calycis fructiferi inflato-tubulosi villosi ore truncato, dentibus brevibus inæqualibus obsoletisve.

β virescens (*Pohl Ic. ined.*)

Hab. in Brasilia: ad Trahiras provinciæ Goyaz et ad Rio Jequitinhonha provinciæ Minas Geraes *Pohl!* in sylvis apertis prope Taioba in deserto occidentali ejusdem provinciæ *A. de St. Hilaire!* *β* ad Manuel Pereira ejusdem provinciæ *Pohl!* (*v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Folia acutiora quam in *H. vestita*, basi minime cordata et minus tomentosa, panicula minor simplicior. Fasciculi in racemis magis approximati.

125. *H. ALTHÆÆFOLIA* (Pohl Ic. ined.), fruticosa, ramis floccoso-tomentosis, foliis petiolatis lato-ovatis obtusiusculis eroso-crenatis basi truncato-cordatis rugosis utrinque tomentosis, capitulis sessilibus, verticillastris approximatis fasciculato-racemosis, racemis paniculatis, bracteis adpressis lanceolatis crassis tomentosis calycem superantibus, calycis fructiferi inflato-tubulosi glabrati ore obsolete vel irregulariter dentato, fauce intus nuda.

Hab. in Brasilia: ad Fazenda Vieyra provinciæ Minas Geraes *Pohl!* in pascuis humidis prope Rio das Mortes ejusdem provinciæ *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Affinis *H. vestitæ* et *duplicato-dentatæ*. Bracteæ constanter lanceolatæ. Folia utrinque breviter cano-tomentosa, nec villosa ut in *H. vestita*, nec basi rotundato-cuneata et supra virentia ut in *H. duplicato-dentata*. An omnes ejusdem speciei varietates vel, teste Pohlio, veræ species?

126. *H. BARBATA* (Sckranck in Denkschr. Bot. Gesellsch. Regensb. 2. 52), caule fruticoso, ramis tomentosis, foliis petiolatis lato-ovatis acuminatis inciso-dentatis basi truncatis crassis rugosis utrinque molissime villosis, capitulis sessilibus, verticillastris laxis approximatis subracemosis, racemis paniculatis, bracteis ovatis acutis calyces æquantibus, calycis tomentosi campanulati ore truncato, dentibus subulatis strictis tubo æqualibus.

Hab. in Brasilia: (*h. s. c. ex hort. Monsp. comm. a cl. Delile, et v. s. c. ex hort. Monac. in herb. Schultes.*)

Habitus *H. vestitæ*, sed tomentum mollius, in paginam inferiorem foliorum albidum subsericeum. Folia majora, longe acuminata. Racemi laxiores. Panicula amplior. Calyces floriferi omnino diversi, sed fructiferos non vidi.

127. *H. OBVALLATA* (Spreng. in Herb. Mus. Berol. MSS.), caule fruticoso, ramis tomentosis, foliis breviter petiolatis ovatis acutiusculis eroso-crenatis basi truncato-cordatis crassis rugosissimis utrinque tomentosis, capitulis sessilibus, verticillastris distinctis fasciculato-racemosis, racemis paniculatis, bracteis numerosis ovato-lanceolatis acutis adpressis calyce duplo triplove longioribus, calycis villosi ore truncato, dentibus subulatis strictis tubo subæqualibus.

Hab. in Brasilia: prope Allegres et ad Rio Jequitinhonha provinciæ Goyaz *Pohl!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Affinis *H. vestitæ* et *barbatæ*. A priore differt calyce et foliorum forma, a *H. barbata* foliis acuminatis et inflorescentia. Florum fasciculi 15-20-plove et ultra, bracteis numerosissimis rugosis tomentosis sæpe semipollicaribus obducti. Racemuli crassi, 1-2-pollicares. Panicula ampla, valde ramosa. Calyces superne dilatati. Corolla pubescens, tubo breviter exserto. Achenia non vidi.

128. *H. CARPINIFOLIA* (Benth. in Herb. Mus. Berol. MSS.), caule fruticoso, ramis rufo-villosis, foliis sessilibus ovato-rotundatis obtusis acuminatisve dentatis basi cordatis coriaceis supra glabriusculis subtus venoso-rugosis tomentosis demum glabratissimis, capitulis sessilibus, verticillastris approximatis distinctis fasciculato-racemosis, racemis paniculatis, bracteis adpressis ovato-lanceolatis acuminatis calyces

superantibus, calycis fructiferi tubulosi glabri ore truncato ciliato, dentibus subulatis strictis tubo subæqualibus.

β pilosa, foliis glabris, caule ramisque patentim pilosis.

Hab. in Brasilia: in campis et collibus siccis provinciæ Minas Geraes vulgaris *Pohl! Martius! A. de St. Hilaire! Langsdorff! &c.* inter Minas Novas *Martius! A. de St. Hilaire!* in provincia Goyaz *Pohl!* in Brasilia meridionali *Sello!* ad Cochabamba Peruvianorum? *Hænke!* (*h. s. sp. et v. s. sp. in herb. Brasiliana fere omnia.*)

Frutex 3-5-pedalis, habitu præcedentium. Rami duri, crassi, obtuse tetragoni, tomento brevi et pilis longioribus laxis vestiti. Folia pollicaria vel vix sesquipollicaria, supra rugosiuscula sæpe lucida, subtus venosissima, juniora tomento laxo albido vestita, adultiora glabrata. Panicula parce ramosa. Racemi 2-3-pollicares, crassi. Bracteæ subviolascens, exteriores longe acuminatæ. Corolla cœrulea, extus pubescens, calyce subtriplo longior. Achenia oblonga, apice abrupte acuminata, glabra, lævia. Odor fortis aromaticus.

129. *H. AQUATICA* (*Pohl Ic. ined.*), fruticosa, ramis patentim pilosis, foliis subsessilibus ovato-oblongis obtusiusculis dentatis basi cordatis coriaceis supra glabriusculis subtus venoso-rugosis leviter tomentosus demum glabratis, capitulis sessilibus, verticillastris approximatis distinctis fasciculato-racemosis, racemis subpaniculatis, bracteis adpressis ovato-lanceolatis subulato-acuminatis calyces superantibus, calycis fructiferi tubulosi ore truncato ciliato, dentibus subulatis inæqualibus strictis.

Hab. in Brasilia: ad Rio da Prata provinciæ Minas Geraes *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

A *H. carpinifolia* differt foliis angustioribus subpetiolatis, caule patentim piloso, bracteis longioribus.

130. *H. ARIDA* (*St. Hil. MSS.*), ramis erectis virgatis patentim pilosis, foliis sessilibus ovato-lanceolatis acutis serratis basi rotundato-cordatis glabris supra scabris, floralibus late cordiformibus, capitulis sessilibus, verticillastris æqualibus interrupte racemosis, racemis simplicibus vel subpaniculatis, bracteis ovatis obtusiusculis coloratis calycem subæquantibus, calycis tubulosi dentibus linearibus inæqualibus tubo brevioribus.

Hab. in Brasilia: in paludibus exsiccatis in desertis meridionalibus provinciæ Goyaz *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Caules 2-3-pedales, parum ramosi. Racemus plerumque simplex, capitulis vix distinctis. Verticillastri semipollicem distantes. Folia floralia verticillastrum vix superantia. Bracteæ glabriusculæ, glandulosæ, uti calyces sordide rubræ, exteriores rarius virescentes, foliaceæ. Receptaculum glabrum. Calyx fructifer elongatus, membranaceo-rigidus, venosus, glaber vel ore brevissime ciliatus, dentes superiores dimidio tubi longiores, inferiores sæpius parum breviores. "Corolla pallide purpurea" (*St. Hil.*), calyce parum longior. Genitalia exserta. Stamina inferiora hinc pilosa. Achenia ovoideo-compressa, lævia. Affinis *H. violaceæ*, sed foliis minus scabris magis cordatis, verticillastris minime secundis differre videtur.

131. *H. VIOLACEA* (*Pohl Ic. ined.*), ramis erectis virgatis apice villosis demum glabratis, foliis subsessilibus ovato-tomentosis ovatisve acutis duplicato-serratis basi rotundatis vel infimis cordatis utrinque scaberrimis viridibus coriaceis, capitulis subsessilibus, verticillastris secundis interrupte racemosis, racemis abbreviatis simplicibus vel subpaniculatis, bracteis adpressis ovatis acutiusculis membranaceis coloratis calyces subsuperantibus, calycis tubulosi glabriusculi dentibus subulatis.

Hab. in Brasilia : ad Trahiras provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

132. *H. GLOMERATA* (Mart. ex Schranck in Syll. Pl. Soc. Ratisb. 2. 55), ramis tenuiter pubescentibus, foliis breviter petiolatis sessilibusve ovato-oblongis lanceolatisve acutiusculis serratis basi rotundatis utrinque pubescentibus, capitulis subsessilibus ovoideo-globosis paucifloris, verticillastris interrupte racemosis, racemis elongatis subpaniculatis, bracteis ovatis acutis calyces duplo superantibus, calycis tubulosi glabriusculi dentibus lanceolatis acutis tubo subtriplo brevioribus.

H. oppositiflora. Schranck in Denkschr. Soc. Ratisb. 2. 52.

Hab. in Brasilia : ad Para Herb. Mus. Par. ! ad Congo Santa Rita provinciæ Goyaz et ad Allegres provinciæ Minas Geraes *Pohl!* in campis humidis ad Buritisaes in deserto ejusdem provinciæ *Martius!* ad rivulos prope Chapada inter Minas Novas *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil., Mus. Par., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Caulis herbaceus ? adscendens, obtuse tetragonus, sæpius purpurascens. Folia vix pollicaria, subrugosa, floralia inferiora conformia, superiora gradatim minora, suprema bractæformia. Verticillastri inferiores fere pollicem remoti. Racemi elongati, terminales, sæpe ultra pedales, lateralibus dimidio brevioribus. Capitula sæpe 3-4 in eodem verticillastro, 6-20-flora. Bractæe plerumque coloratæ, margine ciliatæ, dense imbricatæ. Calycis faux intus nuda. Corolla vix calycem excedens, extus pubescens. Achenia oblonga, lævia, nitida.

133. *H. PAUCIFLORA* (*Pohl* Ic. ined.), herbacea pubescens, foliis petiolatis ovatis obtusiusculis serratis basi rotundatis cordatisve supra molliter hirsutis subtus glabriusculis subcanescentibus, capitulis ovoideo-globosis paucifloris pedunculatis racemosis, racemis elongatis laxis, bracteis lato-ovatis membranaceis subcoloratis calyce longioribus, calycis tubulosi membranacei glabriusculi dentibus lanceolatis acutis tubo duplo brevioribus.

Hab. in Brasilia : ad Megaponte, Santa Cruz et Corallino provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Folia fere *H. pectinatæ*. Capitula *H. glomeratæ*, sed minora, pauciflora, pedunculata.

134. *H. FOLIOSA* (St. Hil. MSS.), fruticosa ? ramis adscendentibus rufo-villosis, foliis breviter petiolatis lato-ovatis obtusis crenatis basi rotundatis cordatisve utrinque viridibus viscido-pubescentibus villosisve, capitulis ovoideis paucifloris breviter pedunculatis laxè racemosis, racemis subsecundis foliosis subpaniculatis, bracteis ovato-lanceolatis viridibus calyces superantibus, calycis tubulosi dentibus lanceolatis erectis acutis.

Hab. in Brasilia : *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caules 1-2-pedales, uti racemi dense foliosi. Folia inferiora 1-2-pollicaria, floralia capitulum æquantia. Racemi pauciflori. Capitula *H. petrææ*, sed viridia. Bractæe submembranaceæ, venosæ, extus viscido-pubescentes, calyces omnino obtegentes. Achenia oblonga, lævia, pallida.

135. *H. PETRÆA* (St. Hil. MSS.), fruticosa, ramis erectis tomentosis, foliis petiolatis ovatis obtusis crenatis basi cuneatis rugosis utrinque molliter subrufo-tomentosis, capitulis ovoideis paucifloris breviter pedunculatis in racemum brevem densum approximatis,
May 1833.

bracteis ovato-lanceolatis acutis coloratis calycem superantibus, calycis tubulosi glabriusculi dentibus lanceolatis acutis erectis.

Hab. in Brasilia: in petrosis prope Taioba in deserto occidentali provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*)

Fruticulus gracilis, basi denudatus. Racemus 1-2-pollicaris, subsecundus. Bracteæ et calyces rubicundæ, glandulosæ. Achenia oblonga, lævia, pallida.

136. *H. SUBROTUNDA* (Pohl Ic. ined.), fruticosa, ramis erectis virgatis tenuiter pubescentibus, foliis parvis sessilibus ovali-rotundis obtusis crenatis basi late rotundatis rigidis coriaceis venosis utrinque viridibus scabriusculis, floralibus conformibus, capitulis ovoideis paucifloris racemosis, racemis subsimplicibus, bracteis coloratis lanceolatis acutiusculis ciliatis calyces superantibus, calycis fructiferi tubulosi ore truncato ciliato vix dentato.

Hab. in Brasilia: ad Pontefeite provinciæ Goyaz *Pohl!* (v. s. sp. in herb. *Mus. Cæs. Reg. Bras. Vind.*)

137. *H. LYTHROIDES* (Pohl Ic. ined.), fruticosa, ramis erectis virgatis pubescentibus, foliis parvis sessilibus ovalibus obtusis basi rotundatis utrinque scabriusculis subrufo-pubescentibus, capitulis ovoideis paucifloris racemosis, racemis elongatis simplicibus, bracteis lanceolatis acutis coloratis pubescentibus calyce longioribus, calycis tubuloso-campanulati ore truncato, dentibus subulatis? tubum subæquantibus.

Hab. in Brasilia: ad Fazenda Agua Fria provinciæ Goyaz *Pohl!* (v. s. sp. in herb. *Mus. Cæs. Reg. Bras. Vind.*)

Specimina florida vix suppetunt, sed videntur a *H. subrotunda* calyce distinctissima.

138. *H. PARVIFOLIA* (Pohl Ic. ined.), fruticosa, ramis erectis virgatis tenuiter pubescentibus, foliis parvis petiolatis ovalibus apice dentatis basi angustatis integerrimis rigidis coriaceis venosis utrinque viridibus scabriusculis, floralibus conformibus, capitulis ovoideis paucifloris racemosis, racemis subsimplicibus, bracteis lanceolato-linearibus coloratis adpresso-villosis calyce longioribus, calycis fructiferi tubulosi ore truncato ciliato vix dentato.

Hab. in Brasilia: ad Megaponte provinciæ Goyaz *Pohl!* (v. s. sp. in herb. *Mus. Cæs. Reg. Bras. Vind.*)

A *H. subrotunda* differt foliis angustioribus in petiolum brevem angustatis, bracteis longioribus, capitulis paucifloris.

139. *H. RUBICUNDA* (Pohl Ic. ined.), ramis glabriusculis angulis scabris, foliis petiolatis lato-ovatis breviter acuminatis duplicato-serratis basi cuneato-rotundatis supra scabris subtus leviter ad nervos tomentosis, capitulis ovoideis paucifloris brevissime pedunculatis racemosis, racemis paniculato-racemosis, bracteis lanceolatis coloratis calyce duplo longioribus, calycis tubulosi ore truncato, dentibus setaceis strictis tubum subæquantibus.

Hab. in Brasilia: ad Barra do Rio das Velhas provinciæ Minas Geraes *Pohl!* in campis prope Villa Rica ejusdem provinciæ *Martius!* vulgaris in pascuis prope San João del Rey ejusdem provinciæ *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*, *Mus. Cæs. Reg. Bras. Vind.* et *Mus. Reg. Monac.*)

Tota planta sæpius purpurascit. Caules $1\frac{1}{2}$ - $2\frac{1}{2}$ -pedales, erecti. Folia $1\frac{1}{2}$ -2-pollicaria, forma fere *H. spicata*, cui hæc species habitu affinis, sed capitulis subsessilibus et bracteis lanceolatis distinctissima. Racemi parum ramosi, graciles. Verticillastri subsecundi. Folia floralia superiora bracteis conformia. Bracteæ extus glabræ vel pubescentes, margine subciliatæ. Calycis fructiferi tubus demum bracteas subæquat, dentibus triplo brevioribus.

140. *H. MURICATA* (Schott MSS. in herb. Mus. Cæs. Reg. Bras. Vind.), herbacea? caule glabriusculo angulis scabris, foliis petiolatis lato-ovatis acuminatis duplicato-serratis basi cuneato-rotundatis supra scabriusculis subtus subglabris, capitulis depressis subglobosis paucifloris subsessilibus, verticillastri secundis supremis approximatis infimis remotis, bracteis lato-ovatis acutis adpressis calyces superantibus villosis, calycis fructiferi tubulosi pubescentis ore truncato, dentibus setaceis strictis tubo brevioribus.

Hab. in Brasilia: ad Rio Janeiro *Schott!* et ad Rio Abaite provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et St. Hil.)

Caules pluripedales, erecti vel adscendentes. Folia *H. rubicundæ*, sed magis acuminata, floralia minuta. Bracteæ membranaceæ, sæpe coloratæ. Dentes calycini latitudinem tubi vix æquantes.

141. *H. INODORA* (Schranck in Syll. Pl. Soc. Ratisb. 2. 56), herbacea, caule erecto glabro vel bifariam pubescente angulis lævibus, foliis petiolatis lato-ovatis acutiusculis inæqualiter serratis basi late cuneatis rotundatisve tenuibus utrinque glabris subtus pallidis, capitulis depressis subglobosis paucifloris subsessilibus, verticillastri subsecundis supremis approximatis infimis remotis, bracteis ovato-lanceolatis adpressis calycem æquantibus pubescentibus, calycis fructiferi tubulosi pubescentis ore truncato, dentibus setaceis strictis tubo multoties brevioribus.

Hab. in Brasiliæ humidis *Martius ex Schranck* l. c. (h. s. c. ex hort. Vind. comm. a cl. Endlicher.)

Herba pluripedalis, pallide virens. Habitus fere *Pogostemonis plectranthoidis*. Caulis anguli acutiusculi, sed in speciminibus suppetentibus nunquam exasperati. Folia sæpe duplicato-serrata vel subangulata, basi integerrima. Petiolus limbo 2-3-pollicari fere æqualis. Racemi subsimplices, terminales, et in axillis foliorum caulinum. Capitula 6-10-flora et ultra, supra subplana. Corolla alba, tubo breviter exserto. Affinis *H. muricata*, sed diversa caule lævi et foliis tenuioribus glabris et bracteis angustioribus. An mera varietas ex cultura orta?

142. *H. SYLVULARUM* (St. Hil. MSS.), ramis tomentoso-pubescentibus, foliis petiolatis lato-ovatis acutis duplicato-serratis subincisisve basi rotundatis utrinque viridibus rugosis villosis vel tomentoso-pubescentibus, capitulis ovoideis paucifloris subsessilibus racemosis, racemis paniculatis, bracteis ovatis lanceolatisve villosis calycem subsuperantibus, calycis tubulosi pubescentis ore truncato, dentibus setaceis strictis tubo brevioribus.

Hab. in sylvis cæduis provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Affinis *H. canescenti*, sed viridior, capitula majora sessiliora, et præsertim bracteæ numerosiores majores calyces omnino obtegentes. Caules $2\frac{1}{2}$ -3-pedales, basi sublignosi, in parte superiore uti folia juniora vix canescentes. Bracteæ foliaceæ, virides vel apice subcoloratæ.

143. *H. POLYSTACHYA* (Humb. et Kunth! Nov. Gen. et Spec. Amer. 2. 321), ramis piloso-pubescentibus angulis asperis, foliis petio-

latis ovatis acutis duplicato-serratis incisive basi rotundatis supra subpubescentibus subtus cano-tomentosis, capitulis ovoideis paucifloris subsessilibus secundis, verticillastris racemosis, racemis laxè paniculatis, bracteis ovatis acutis calycem floriferum subsuperantibus fructifero brevioribus, calycis pubescentis dentibus setaceis strictis tubo brevioribus.

β *longiflora*, calycibus demum bracteis subduplo longioribus.

Hab. in Mexico: in temperatis inter Pazcuaro et Ario *Humboldt et Bonpland*! in dumetis prope Jalapam *Schiede et Deppe*! β in locis Savannah dictis insulæ Trinitatis vulgaris *Lockhart*! (*h. s. sp. comm. a cl. Presl e herb. Hænke, et v. s. sp. in herb. Kunth., Mus. Par., Mus. Reg. Berol., Mus. Reg. Monac., &c., β in herb. Hooker.*)

Caules herbacei, erecti, ramis tetragonis. Folia floralia bractæformia. Axis paniculæ et pedunculi villosio-lanati. Bractæe paucae, adpressæ, coloratæ, margine ciliatæ. Calyx fructifer membranaceus, elongatus. Corolla calyce duplo longior. Var. β quasi media est inter *H. polystachyam*, *H. canescentem*, et *H. spicatam*.

144. *H. CANESCENS* (Humb. et Kunth! Nov. Gen. et Spec. Amer. 2. 321), ramis tomentoso-pubescentibus, foliis petiolatis rhombeo-ovatis acutis duplicato-serratis subincisive basi rotundatis in petiolum angustatis subtus vel utrinque cano-tomentosis, capitulis ovoideis paucifloris subsessilibus subsecundis racemosis, racemis paniculatis, bracteis ovatis acutis calycem floriferum æquantibus fructifero brevioribus, calycis villosi post anthesin elongati ore truncato, dentibus setaceis strictis tubo multo brevioribus.

Teucrium rhombifolium. Willd. ex Loud. Hort. Brit. 235.

Hab. in America tropica: juxta urbem Caraccas *Humboldt et Bonpland*! in Nova Hispania *Moçino et Sessé*! (*h. s. c. et v. s. sp. in herb. Kunth. et Lambert.*)

H. polystachyæ affinis, sed magis canescens, inflorescentia densior, bractæe minores, dentes calycini multo breviores. Caules herbacei, erecti, ramosi, angulis vix asperis. Folia sæpius crassa, nervosa, supra molliter pubescentia, rarius glabriuscula, subtus dense cano-tomentosa, floralia parva, suprema bractæformia. Racemi numerosi, pedunculati, 2-4 pollices longi. Verticillastri infimi semipollicem remoti, superiores approximati. Fasciculi 5-7-flori, pedunculo communi brevissimo. Bractæe adpressæ, paucae, acutæ, virides vel in capitulo fructifero apice coloratæ, margine ciliatæ. Calyx fructifer valde elongatus, erectus, strictus, dentibus suberectis latitudinem tubi vix æquantibus. Corolla glabra, tubo calycem parum excedente. Genitalia breviter exserta. Achenia oblonga, lævia.

145. *H. MICRANTHA* (Pohl Ic. ined.), ramis breviter pubescentibus angulis lævibus, foliis petiolatis ovatis acutis irregulariter serrato-crenatis basi rotundatis subinæqualibus supra pubescentibus subtus pallidis vel cano-tomentosis, capitulis parvis paucifloris racemosis, pedunculis capitulum æquantibus, racemis strictis elongatis paniculatis, bracteis ovato-lanceolatis acuminatis calyces subsuperantibus, calycis pubescentis ore truncato, dentibus setaceis strictis tubo subbrevioribus.

Hab. in Brasilia: ad Villa Boa provinciæ Goyaz *Pohl*! (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Affinis *H. polystachyæ*, sed viridior, minus tomentosa, capitula multo minora, racemi graciliores.

146. *H. SPICATA* (Poit.! Ann. Mus. 7. 474. t. 28. f. 2), ramis glabriusculis angulis aculeato-scabris, foliis petiolatis ovatis acutis inæqualiter serrato-crenatis basi rotundato-cuneatis utrinque glabriusculis vel supra pubescentibus, capitulis semiovoideis laxè racemosis,

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pedunculis capitulo fructifero æqualibus, racemis paniculatis, bracteis ovatis submembranaceis calyce fructifero dimidio brevioribus, calycibus glabris fructiferis elongatis basi inflatis, ore truncato, dentibus setaceis strictis tubo multo brevioribus.

Nepeta mutabilis. *Rich!* in *Act. Soc. Hist. Nat. Par.*

Hab. in America æquinoctiali: in ins. Sancti Dominici *Richard*, Martinica *Sieber!* in Nova Hispania *Moçino et Sesse!* in locis calidis in ripa fluminis Magdalenæ prope Honda Novo-Granatensium *Humboldt et Bonpland!* in Cayenna *Poiteau!* in nemorosis Essequibo *Meyer*, in Guiana *Perrottet!* in Brasilia in sylvis cæduis ad Parà *Martius!* in Brasilia tropica *Sello!* in campis inter Cabo d'Agosto et Rio da Onca in Serro Frio provinciæ Minas Geraes *Martius!* etiam in ins. Marianis *Gaudichaud!* et Manilla *Chamisso!* verosimiliter ex America allata. (*h. s. sp.*)

Species valde variabilis. Caulis herbaceus, annuus, erectus, humanæ altitudinis, ramosus, angulis obtusis et aculeis brevibus scabris faciebus glabris vel brevissime pubescentibus. Folia 1-2-pollicaria, herbacea, sæpius glabra, subtus pallida venosa, rarius breviter pubescentia, superiora parva, floralia pedunculo breviora. Pedunculi capitulo fructifero plerumque subæquales, glabri, in var. β brevissimi. Fasciculi sub-5-7-flori, rarius 2-3-flori. Bracteæ sæpius lato-ovatae, acutæ, membranaceæ, nunc cuneiformes vel lanceolatae, glabræ vel margine ciliatæ. Calyces florigeri bracteis breviores, campanulati, fructiferi bracteas duplo excedentes, 2-2½ lineas longi, glabri, striati, fauce intus nuda, dentibus latitudine tubi brevioribus. Corollæ parvæ, violaceæ. Tubus intus albus, calyce subtriplo longior, bracteas duplo superans. Limbi laciniae superiores maculis obscurioribus notatæ. Genitalia corollam æquantia. Achenia parva, nigra, sublucida.

147. *H. ROSTRATA* (Salzm.! Pl. Bras. exs.), ramis glabris angulis aculeato-scabris, foliis petiolatis ovatis acutis inæqualiter serrato-crenatis basi rotundato-cuneatis glabris, capitulis basi globosis laxe racemosis, pedunculis capitulo fructifero subbrevioribus, bracteis ovato-membranaceis glabris calyce fructifero 3-4-plo brevioribus, calycibus glabris fructiferis basi inflatis longe rostratis ore truncato, dentibus brevissimis setaceis strictis.

Hab. in Brasilia: in umbrosis prope Bahiam *Salzmann!* in Brasilia tropica *Sello!* (*h. s. sp. a Salzmannio lectam et e Mus. Reg. Berol.*)

A *H. spicata* differt glabritie, capitulis paucioribus multo majoribus, calycibus longe rostratis, et bracteis majoribus latioribus. Caulis annuus, erectus, 4-5-pedalis, subramosissimus. Folia glabra, tenuia, parce dentata, basi integerrima, floralia infima capitulum excedentia, superiora pedunculo breviora, suprema minuta. Racemi subsimplices, fere pedales. Verticillastri infimi pollicem, superiores vix semipollicem distantes, secundi. Pedunculi 3-4 lineas longi. Capitula 6-10-flora. Calyces fructiferi 5 lineas longi, membranacei, striati, basi inflati, apice longe attenuato-cylindrici. Achenia parva, oblonga, nigra, lævia, sublucida.

148. *H. TENUIFLORA*, ramis bifariam pubescentibus angulis lævibus, foliis petiolatis ovatis acutis inæqualiter serratis basi rotundato-cuneatis glabris, capitulis ovoideis paucifloris laxe racemosis, pedunculis capitulo fructifero duplo longioribus, racemis paniculatis, bracteis ovatis membranaceis calyce fructifero dimidio brevioribus, calycibus glabris fructiferis elongatis basi inflatis ore truncato, dentibus setaceis strictis tubo multo brevioribus.

Hab. in Brasilia *Leandro di Sacramento!* (*v. s. sp. in herb. Mus. Par.*)

Affinis *H. spicatæ*, sed caulibus lævibus bifariam et alternatim pubescentibus, glabritie foliorum et bractearum, et pedunculis elongatis gracilibus distincta.

149. *H. EXPANSA* (Pohl Ic. ined.), glabriuscula, ramorum angulis subasperis, foliis petiolatis ovatis acuminatis inæqualiter serratis basi cuneatis supra sparse subtus ad nervos hispidulis, capitulis ovoideis paucifloris laxe racemosis, pedunculis capitulo fructifero brevioribus, racemis divaricato-paniculatis, bracteis ovatis acutis membranaceis ciliatis, calycibus glabriusculis fructiferis vix bractea longioribus, ore truncato, dentibus setaceis strictis tubo dimidio brevioribus.

Hab. in Brasilia *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

A *H. spicata* differt præcipue calycibus brevioribus, dentibus longioribus, bracteis acutioribus, capitulis majoribus, &c.

150. *H. DUBIA* (Pohl Ic. ined.), pubescens, ramorum angulis lævibus, foliis breviter petiolatis ovatis acutis duplicato-crenatis basi cuneatis supra scabro-hispidulis subtus ad nervos pubescentibus rugosis, capitulis ovoideis paucifloris racemosis, pedunculis brevissimis, racemis subramosis, bracteis lanceolatis acuminatis calyce fructifero longioribus pubescentibus ciliatis, dentibus calycinis setaceis strictis tubo dimidio longioribus.

Hab. in Brasilia: ad Rio Abaite provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Affinis *H. expansæ*, sed minus ramosa, villosior, bracteæ longiores angustiores.

SECTIO XIII. MESOSPHERIA.

Florum capitula laxiuscula pauciflora. Bracteæ nunc minutæ vix ullæ nunc subulatæ laxæ calycem subæquantes. Calyx in capitulo subsessilis, fructifer oblique campanulatus, ore truncato, dentibus subulatis strictis et fauce intus villis clausa vel pilorum fasciculis 5 inter dentes dispositis plus minusve ciliata. Corollæ tubus inclusus vel breviter exsertus. Herbæ vel rarius suffrutices plerumque pilosæ, capitulis pedunculatis, inferioribus vel rarius omnibus in axillis foliorum caulinis conformium solitariis vel fasciculatis, superioribus sæpius in paniculam laxam dispositis.

151. *H. PLECTRANTHOIDES*, caule herbaceo erecto pilis longis patentibus hirsuto angulis lævibus, foliis brevissime petiolatis lato-ovatis vel rotundatis obtusis crenato-serratis basi rotundatis vel subcordatis pilosis, capitulis paucifloris laxe racemosis pedunculatis, racemis laxis paniculatis, bracteis lanceolatis acutis calyce brevioribus, calycibus floriferis campanulatis villosis, dentibus subulatis tubum æquantibus.

Hab. in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol.)

Caules sæpius purpurascens. Rami petioli (brevissimi) et nervi foliorum pilis longis albidis patentibus sæpius vestiti. Folia vix pollicaria, superiora minora, floralia infima conformia, suprema minuta. Panicula laxa. Pedunculi capitulo florigero duplo longiores. Bracteæ laxiusculæ, calyce florigero subbreiores. Flores parvi. Corolla calyce duplo longior. Stamina exserta. Specimina fructifera haud suppetunt.

Species *H. spicatæ* affinis, inter *Polydesmiam* et *Mesosphæriam* quasi media, habitu *Plectrantho Coëtsæ* non dissimilis.

152. *H. PUMILA* (Pohl Ic. ined.), herbacea humilis erecta, caule patentim piloso, foliis brevissime petiolatis lato-ovatis rotundatis ser-

rato-crenatis basi rotundatis vel subcordatis viridibus pilosis, capitulis laxe paucifloris pedunculatis racemosis, bracteis laxis subulatis calyce brevioribus, calycis sessilis fructiferi oblique campanulati ore truncato, dentibus subulatis, fauce intus villosa.

Hab. in Brasilia: ad Serra de Chrystais provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

H. communi valde affinis, sed minor, pilosior, et folia latiora.

153. *H. COMMUNIS* (St. Hil. MSS.), herbacea humilis glabra vel plus minusve villosa, foliis breviter petiolatis rotundatis ovatis oblongisve crenatis basi cuneatis angustatisve, capitulis laxe paucifloris pedunculatis racemosis, bracteis laxis subulatis, calycis sessilis villosi fructiferi oblique campanulati ore truncato, dentibus subulatis, fauce intus lanata.

H. flabellata, *Pohl Ic. ined.*

Hab. in Brasilia: in campis elevatis præruptis et ruderatis montium provinciæ Minas Geraes communis *Martius! A. de St. Hilaire! Pohl!* (*v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.*)

Herba semipedalis vel vix pedalis, basi sæpe subrepens, superne procumbens adscendens vel erecta paniculato-ramosa, nunc omnino glabra, sæpius plus minusve villosa. Folia $\frac{1}{2}$ -1-pollicaria, utrinque viridia, crenaturis obtusis vel acutis nunc omnino glabra, nunc rugosa, utrinque molliter villosa. Racemi 3-5-pollicares. Pedunculi 3-6-lineares, 3-5-flori. Calyces floriferi parvi, campanulati, fructiferi parum aucti, lineam longi, hinc gibbosi et ideo pedicellus lateralis evadit. Corolla cœrulea, extus glabriuscula, tubus breviter exsertus, limbus profunde lobatus, lobo infimo apice subulato-acuminato. Filamenta pilosa. Achenia ovoideo-subglobosa, nigra, lævia. Valde variabilis est quoad latitudinem foliorum et villositatem.

154. *H. FRUTICOSA* (Salzm.! Pl. Bras. exs.), ramis divaricatis junioribus tomentosis, foliis breviter petiolatis ovatis obtusis crenatis basi cuneatis rugosissimis subtus pallidis, pedunculis solitariis axillaribus folio longioribus, capitulis laxe plurifloris subglobosis, bracteis laxis subulatis, calycibus fructiferis basi supra subgibbis elongatis incurvis, ore obliquo truncato villosa, dentibus subulatis patentibus.

Hab. in Brasilia tropica: in collibus aridis circa Bahiam *Salzmann!* in sylvis Catingas ad Maracas provinciæ Bahiensis et in campis in Serro Frio provinciæ Minas Geraes *Martius!* (*h. s. sp. a Salzmannio lectam, et v. s. sp. in herb. Mus. Reg. Monac.*)

Frutex 4-6-pedalis, ramis obtuse tetragonis lignosis sulcatis, ramulis numerosis brevibus nodosis tomentoso-pubescentibus. Folia vix 4-6 lin. longa, supra bullato-rugosa, tenuissime pubescentia, subtus venosa subtomentosa, floralia conformia. Capitula vel fasciculi florum pauca, versus apices ramulorum sessilia, 10-15-flora. Bracteæ calyce parum breviores, molles. Calyces sessiles, forma fere *H. suaveolentis*, sed tenuiores, incurvi et ore magis obliquo. Tubus extus pubescens. Faux marginē villosa. Dentes longitudine latitudinem tubi æquantes, inter se subæquales vel tribus longioribus, demum stellato-patentes. Corolla cœrulea (ex Salzm.), vix pubescens, tubo dentes calycinos subæquante. Genitalia corolla breviora. Achenia oblonga, obtusa, subcompressa, læviuscula. "Theæ loco usurpatur, præsertim in refrigeratione" (*Martius*).

155. *H. MELISSOIDES* (Humb. et Kunth! Nov. Gen. et Sp. Am. 2. 320), suffruticosa, ramis rufo-villosis, foliis breviter petiolatis ovatis acutis serrato-crenatis basi rotundatis supra villosis subtus dense cano-tomentosis, pedunculis brevissimis axillaribus subbinatis, capitulis

multifloris laxiusculis secundis, bracteis minutis setaceis, calycibus pubescentibus, fructiferis ovatis strictis, fauce intus villosa, dentibus brevissimis setaceis villosis.

Hab. in America æquinoctiali: in locis alsis amœnis prope pagum El Tablon et ripam fluminis Juanambu regno Novo-Granatensi *Humboldt et Bonpland!* (v. s. sp. in herb. Mus. Par.)

Suffrutex ramosissimus, 4-6-pedalis, aromaticus. Folia floralia caulinis conformia. Pedunculi in axillis sæpissime binati, rarius solitarii. "Corolla alba, externe pubescens" (*Kunth*). Achenia oblongo-triquetra, lævissima.

156. *H. PILOSA*, suffruticosa, ramis pilosiusculis, foliis petiolatis ovatis acutis leviter serrulatis basi cordatis subcanescentibus, pedunculis folio sublongioribus, capitulis 6-10-floris subglobosis, bracteis minutis setaceis, calycibus fructiferis valde auctis ovato-tubulosis æqualibus truncatis pilosissimis, dentibus setaceis tubi latitudine brevioribus.

Hab. in Peruvia *Pavon!* (v. s. sp. in herb. Lambert.)

Rami glabri vel pilis longis patentibus ad angulos obsessi. Folia pollicaria, flaccida, leviter et regulariter crenulata vel serrulata. Pedunculi in axillis inferioribus sæpe 2-3-nati vel fasciculati. Cymæ globoso-capitatae, floriferae magnitudine *Pisi*, fructiferae *Cerasi*. Bractea minutissima. Calycis faux intus villosissima. A *H. polyantha* differt foliorum forma, caule suffruticoso minus paniculato, pedunculis brevioribus, calycibus fructiferis majoribus (minoribus vero quam calyces *H. suaveolentis*), pilis longis patentibus densissime obsessis.

157. *H. SUAVEOLENS* (Poit. ! Ann. Mus. Par. 7. 472. t. 29. f. 2), caule herbaceo erecto piloso, foliis petiolatis lato-ovatis sinuato-serratis inferioribus basi cordatis superioribus rotundatis cuneatisve pubescentibus villosis tomentosive, pedunculis capitulo paucifloro subbrevioribus in axillis solitariis 2-3-natisve racemosis, racemis paniculatis, bracteis minutis setaceis, calycibus fructiferis oblique campanulatis striatis, ore subæquali truncato villoso, dentibus subulatis rigidis erectis.

Menthastrum maximum. *Sloane Nat. Hist. Jam.* 1. 171. t. 102. f. 2.

Mesosphaerium hirsutum. *Browne Hist. Jam.* 257. t. 18. f. 3.

Ballota, foliis cordatis. *Plum. Ic.* t. 163. f. 1.

Ballota suaveolens. *Linn. Sp.* 815. *Jacq. Hort. Vind.* 3. 24. t. 42.

Bystropogon suaveolens. *L'hér. Sert. Angl.* 19.

Hyptis Plumieri. *Poit. ! Ann. Mus. Par.* 7. 473.

H. ebracteata. *Br. in Ait. Hort. Kew. ed.* 2. v. 3. 391.

Bysteropogon graveolens. *Blume Bijdr.* 824?*

Hab. in America æquinoctiali vulgaris: in Mexico ad Hacienda de la Llaguna *Schiede et Deppe*; in ins. Jamaica! Porto Rico! San Domingo! Cuba! Martinica! in ins. Sanctæ Thomæ *Schlechtendal*; in Caraccas *Humboldt et Bonpland!* in Brasiliæ provincia Goyaz *Pohl!* et Minas Geraes *Martius!* *A. de St. Hilaire!* in Brasilia tropica *Sello!* in Peruvia *Pavon!* etiam in Asia tropica verosimiliter ex America allata in ins. Philippinis *Commerson!* Manilla *Chamisso!* *Perrottet!* Moluccis *Durville!* in India Orientali circa Maderaspatam *Shuter!* et in Java *Blume.* (h. s. c.)

Herba annua, erecta, firma, ramosa, 2-6-pedalis. Caulis obtuse tetragonus, pilis longis patentibus albidis plus minusve hirsutus, cæterum glaber vel ad axillas et superne tomentosus. Folia 1-2-pollicaria, latitudine longitudinem fere æquantia, margine serrata vel crenata et sæpius sinuata vel incisa, inferiora fere semper cor-

* "B. caule erecto ramoso pilosiusculo, foliis ovatis inferioribus subcordatis duplicato-serrulatis subpubescentibus, capitulis pedunculatis axillaribus solitariis, calycibus pilosis aristato-dentatis."—*Blume l. c.*

data, superiora frequentius rotundata, cuneata vel interdum longe angustata; omnia nunc tenuia (præcipue in speciminibus cultis), vix pubescentia vel tomentosa, sæpius crassiuscula, rugosula, supra pubescentia vel villosa, subtus dense tomentosa. Verticillastri secundi, inferiores remoti axillares, superiores nunc in racemum laxum elongatum, nunc in paniculam densissimam multifloram dispositi. Pedunculi sæpe (ramulis subabortientibus) in axillo quoque quasi fasciculati, nunc brevissimi, sæpius calycem æquantes, rarius eo longiores. Calyces in quoque pedunculo 2-4, sessiles, hirsuti, fructiferi valde aucti, 4-5 lin. longi, subdeclinati, supra subplani, profunde 10-striati, plicati, ore breviter ciliato, dentibus subæqualibus tubo dimidio brevioribus. Corolla cœrulea, tubo dentes calycinis æquante. Achenia oblonga, lævia.

After the examination of a great number of specimens, from all parts of the West Indies, I cannot but feel convinced that the two plants described by Poiteau under the name of *H. suaveolens* and *Plumieri*, are not even distinct varieties, but different states or parts of the same plant.

158. *H. GRAVEOLENS* (Salzm. ! Pl. Bras. exs.), caule herbaceo erecto pilosiusculo angulis lævibus, foliis petiolatis ovatis acutis sinuato-serratis basi cordatis rugosis utrinque viscoso-pubescentibus, pedunculis axillaribus fasciculo paucifloro pluries longioribus superioribus irregulariter subpaniculatis, bracteis minutis, calycibus fructiferis parvis oblique campanulatis vix striatis, ore subæquali truncato, dentibus brevissimis subulatis rigidis erectis.

Hab. in Brasilia: in maritimis prope Bahia *Salzmann!* ad Rio Janeiro *Schott!* (*h. s. c. a Salzm. lectam.*)

Herba annua, 4-6-pedalis, *H. suaveolenti* affinis, sed pedunculis elongatis filiformibus et calycibus fere triplo minoribus distincta. Tota planta viscidula et pilis brevibus patentibus villosa nec tomentosa. Pedunculi ramulorum abortione in axillis 2-3 glomerati, filiformes, pollicares, apice fasciculum 4-6-florum ferentes. Calyces sessiles, fructiferi vix 2 lin. longi, pallidi, nervis vix prominentibus. Corolla cœrulea. Achenia *H. suaveolentis*, sed multo minora. "Odor gravis aromatica" (*Salzmann*).

159. *H. UMBROSA* (Salzm. Pl. Bras. exs.), caule herbaceo erecto villosulo angulis scabris axillis subnudis, foliis petiolatis lato-ovatis acutis irregulariter serratis et inciso-lobatis basi rotundatis cordatisve supra pilosiusculis subtus pallidis pubescentibus vel demum glabratis, pedunculis axillaribus filiformibus subfasciculatis capitulo laxo 3-10-floro multoties longioribus, bracteis minutis setaceis, calycibus fructiferis parvis pubescentibus oblique campanulatis, ore æquali truncato villosulo, dentibus brevissimis subulatis strictis.

Hyptis graveolens. *Schranck in Syll. Pl. Soc. Ratisb.* 2. 56?*

Hab. in Brasilia: in umbrosis prope Bahia *Salzmann!* in siccis inter Retiro et Fazenda dos Negros sylvarum cæduarum provinciæ Rio de Janeiro et in campis ad Sabarà et alibi provinciæ Minas Geraes *Martius!* in nemoribus provinciarum Sancti Pauli, Rio Janeiro et Minas Geraes vulgatissima *A. de St. Hilaire!* (*h. s. sp. comm. a cl. Salzm. et v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.*)

Ab affini *H. viscida* differt pilis minime viscosis, caule ad angulos scabro-muricato, foliis subtus subcanescentibus, dentibus acutioribus. Corolla lilacino-cœrulea.

* "H. floribus axillaribus terminalibusque ramulorum subsolitariis, ramulis superioribus folia decussantibus, caule aculeis innocuis scabro.

"Perennis. Rami inferiores legem vulgarem sequuntur, et ex axillis foliorum oriuntur, sed superiores plerumque cum foliis crucem rectam faciunt, oppositi nempe sunt, basique cum foliorum basibus angulos rectos formant. Subinde tamen etiam pedunculi laterales solitarii. Corolla cœrulea, curva. Folia petiolata, præter venas valde pubescentes, glabra, punctata. Calycis dentes subulati."—*Schranck l. c.*

160. *H. POLYANTHA* (Poit. ! in Ann. Mus. Par. 7. 470), caule herbaceo erecto pubescenti-villoso axillis pilosissimis, foliis petiolatis ovatis acutiusculis irregulariter crenato-serratis basi rotundatis cordatisve supra piloso-scabris subtus albo-tomentosis, panicula ampla, pedunculis filiformibus capitulo laxe 5-20-floro multoties longioribus, bracteis minutis setaceis, calycibus fructiferis oblique campanulatis pubescentibus, ore æquali truncato villosa, dentibus brevissimis subulatis strictis.

Bystropogon sidæfolium. *L'hér. Sert. Angl.* 19?*

Hab. in Peruvia: in temperatis montium Quitensium et Peruvianorum juxta Quito, Loxa et Gonzanama *Humboldt et Bonpland!* (v. s. *sp. in herb. Mus. Par.*)

Herba odoratissima, 4-6-pedalis, superne paniculato-ramosissima. Petioli piloso-hispidi. Folia 1½-2-pollicaria, simpliciter serrata vel etiam margine sinuata, floralia minora, suprema minuta. Panicula laxissima, ramis elongatis tenuibus. Pedunculi elongati, 5-10-flori vel (in specimine Kunthiano in Herb. Mus. Par. servato) 20-30-flori. Capitulum fructiferum globosum magnitudine *Cerasi*. Calyx circiter 2 lineas longus, fauce villis albis clausa. Corolla minuta, pubescens, violacea (*Bonpl.*). Achenia ovata, lævia.

161. *H. LILACINA* (Schied. et Depp. in Linnæa 5. 101), molliter pubescens, foliis petiolatis ovatis ellipticisve acutis duplicato-serratis basi cuneatis angustatisve supra pubescentibus subtus canescenti-tomentosis, capitulis laxe paucifloris axillaribus oppositis pedunculatis parvis, bracteis laxis setaceis calyce vix brevioribus, calycis villosi ovati striati dentibus acuminato-subulatis demum patentibus.

Hab. in America centrali: in dumetis prope Jalapa Mexicanorum *Schiede et Deppe*; in Nova Hispania *Moçino et Sessé!* (v. s. *sp. in herb. Lambert.*)

Affinis *H. polyanthæ*, sed foliis et calycibus distincta. Caules erecti, 2-3-pedales. Cymæ 5-7-floræ, pedunculis filiformibus pubescentibus vix pollicem longis. Calyx urceolatus, hirsutus, magnitudine calycis *H. polyanthæ*, sed minus truncatus, dentibus basi dilatatis ciliatis, fauce intus subvillosa. Corolla (lilacina ex *Cham.* et *Schlecht.*) puberula, calycem breviter superans.

162. *H. URTICOIDES* (Humb. et Kunth ! Nov. Gen. et Sp. Amer. 2. 320), caule herbaceo erecto tenuiter pubescente angulis subasperis, foliis petiolatis ovatis acutis serratis basi cuneatis supra hispidulis subtus pubescentibus, capitulis laxe paucifloris longe pedunculatis in racemos secundos paniculatos dispositis, bracteis minutis setaceis, calycibus pubescentibus fructiferis oblique campanulatis, ore æquali truncato villosa, dentibus subulatis strictis tubo subbrevioribus.

Hab. in America æquinoctiali: in temperatis in radicibus montis Macultepec prope Jalapa Mexicanorum *Humboldt et Bonpland!* (v. s. *sp. in herb. Mus. Par.*)

Herba annua, ramis tetragonis. Folia supra et subtus ad nervos scabriuscula, 2-3 pollices longa. Corolla minuta. Achenia oblonga, oculo armato rugosula. Media inter *H. polyantham* et *H. pectinatham*.

163. *H. RACEMULOSA* (Mart. MSS.), caule herbaceo erecto tenuiter rufo-pubescente angulis lævibus, foliis petiolatis ovatis acutis duplicato-serratis basi rotundatis et in petiolum decurrentibus supra villosulis subtus rufo-tomentosis, cymis capitatis paucifloris brevissime

* “*B. paniculis laxissimis, pedunculis verticillatis filiformibus.*”—*L'hér. l. c.*

pedunculatis in racemos subsecundos axillares dispositis, bracteis minutis setaceis, calycibus rufo-tomentosis fructiferis oblique campanulatis, ore æquali truncato villosa, dentibus subulatis strictis tubo brevioribus.

Hab. in Brasilia: in campis ad Villa Rica provinciæ Minas Geraes *Martius!* in eodem loco, in pascuis elevatis in Serra do Papagaio ejusdem provinciæ et in sylvis cæduis inter Minas et Rio de Janeiro *A. de St. Hilaire!* (v. s. sp. in herb. Mus. Reg. Monac. et St. Hil.)

Habitus *H. polystachyæ*, sed bracteis calycibusque distinctissima. A *H. urticoide* differt fasciculis fere sessilibus. A reliquis hujus sectionis racemis axillaribus pedunculatis densis rufescentibus ad apicem caulis subpaniculatis. Affinis quoque *H. pectinata*, sed cymis etiam fructiferis capitatis nec elongatis et racemis caule foliorumque pagina inferiore rubiginoso-tomentosis abunde differt. Herba est 2-2½-pedalis. Corolla albo-violacea ex *St. Hil.*, roseo-alba purpureo-maculata sec. *Martius*. —Specimina fructifera non vidi.

Species Sectionis XIII. non satis nota.

164. *H. LAMIIFOLIA* (Weinm. in Syll. Plant. Soc. Ratisb. 1. 226).

Hab. in Brasilia *Weinmann*.

“Caule ramoso 4-gono piloso radicante, foliis subcordato-ovatis acuminatis crenato-dentatis piloso-scabris petiolatis subtus albicantibus, capitulis axillaribus pedunculatis internodio brevioribus, involucris setaceis capitulum æquantibus.

“Caulis 4-6-pedalis, decumbens, radicans, acute tetragonus, ad angulos præcipue pilosus, in planitiebus sub lente 2-3-striatus. Folia subcordato-ovata, acuminata, supra viridia, subtus albicantia, præcipue ad nervos piloso-scabra, 1-2 unc. longa, ¾-1 lata, in petiolum desinentia. Petiolus 4-5 lin. longus. Internodia 2-5 unc. longa, æqualia. Pedunculi axillares, oppositi, 1-2½-unciales, teretes. Capituli magnitudine *Pisi majoris*. Involucrum lineari-setaceum, pilis crebris ad marginem obsessum. Calyx brevis, tubulosus, 5-dentatus, dentibus acuminatis æqualibus. Corolla parva, albida, maculis minutissimis violaceis v. ferruginascentibus picta. Faux inflata. Labium superius 2-lobum, inferius 3-lobum, lobo intermedio saccato extus piloso, marginibus omnibus reflexis. Affinis *H. polyanthæ*.” —*Weinm. l. c.*

An *H. umbrosa*?

SECTIO XIV. PECTINARIA.

Cymæ per anthesin subcapitatae, post anthesin elongatae unilaterales pectinatae. Bracteæ laxæ setacæ. Calyx subsessilis, fructifer tubulosus truncatus, dentibus setaceis strictis, fauce intus villis clausa.

165. *H. PECTINATA* (Poit. ! Ann. Mus. Par. 7. 474), glabra vel tenuiter pubescens, foliis petiolatis ovatis crenato-serratis basi rotundatis subtus pallidis, cymis multifloris laxiusculis paniculato-racemosisdemum elongatis incurvis pectinatis, bracteis laxis setaceis calyce subbrevioribus, calycis tubulosi canescentis ore truncato, faucē intus villosa, dentibus setaceis strictis tubo brevioribus.

Mentha perilloides. Linn. Syst. ed. 13. 445? * non Auct.

Nepeta pectinata. Linn. Sp. 799.

Bystropogon pectinatum. L'hér. Sert. Angl. 19.

Nepeta aristata. Rich. ! Act. Soc. Hist. Nat. Par. 110.

Brotera Persica. Spr. in Trans. Soc. Linn. Lond. 6. 151. t. 4.

Hyptis Persica. Poit. Ann. Mus. Par. 7. 471.

* A specimen marked *Mentha frutescens* in Linnæus's Herbarium, and which I think it probable he had in view in describing the *M. perilloides*, is certainly a young plant of *Hyptis pectinata*.

Ballota disticha. Rodsch. Obs. 35. ex Meyer Fl. Esseq. 208. non Linn.

Ballota suaveolens. Rodsch. Bald. Diar. fas. 28. p. 79, ex Meyer l. c. non Linn.

Hyptis nepetoides. Fisch.! Schranck in Denkschr. Bot. Gesellsch. Regensb. 2. 52.

Hyptis racemosa. Zuccagni! in Act. Acad. Taurin ?*

Bystropogon coarctatum. Thonn.! et Schum.! in Act. Acad. Hafn. 4. 34.

Hab. in Americæ æquinoctialis aridis cretaceis et arenosis vulgaris; etiam in Africæ nec non Asiæ regione tropica spontanea, sed non indigena: in ins. Cuba! Jamaica! Porto Rico! Caribæis! in Mexico calidiore! Panama *Cuming!* Peruvia *Pavon!* ins. Trinitatis *Sieber!* ad Essequibo *Meyer!* Demerara *Parker!* in Brasilia ad Bahia *Salzmann!* in provincia Goyaz *Pohl!* ad Rio Janeiro! et in ins. Sanctæ Catherinæ *Gaudichaud!* in Africa occidentali tropica *Thonning!* Madagascaria *Bojer!* ad Maderaspatam! in ins. Marianis *Gaudichaud!* (*h. s. sp.*)

Caulis basi durus, sublignosus. Rami erecti, 2-5-pedales, angulis lævibus sæpius pubescentibus. Folia forma et magnitudine variabilia, nunc vix pollicaria, lato-ovata, obtusa, nunc 2-3-pollicaria, acuminata, acuta, crenaturis obtusis vel rarius acutis, utrinque glabra vel pagina superiore pilis brevissimis raris hispidula et subtus tenuiter cano-tomentosa. Racemi secundi, apice dense coarctati, basi interrupti, simplices vel frequentius paniculato-ramosi. Cymæ utrinque 5-30-floræ, juniores capitatae, bracteis dentibusque calycinis subulatis crinitæ, fructiferæ ut in *Borragineis* incurvo-pectinatae. Corolla parva, pallide purpurascens vel flavida, labiis purpureo-maculatis. Achenia parva, oblonga, nigra, lævia.

SECTIO XV. MINTHIDIUM.

Flores in verticillastris axillaribus plerumque multifloris sessiles vel breviter pedicellati. Bractea minutæ vix ullæ vel laxæ setacæ. Calyx campanulatus æqualis, fauce intus nuda. Corolla vix calycem excedens. Herbæ apice sæpe subpaniculatæ.

166. *H. PULEGIOIDES* (Pohl Ic. ined.), herbacea basi procumbens, ramis adscendentibus adpresse pubescentibus, foliis breviter petiolatis lanceolatis acutis serratis basi angustatis rugosis villosiusculis floralibus conformibus minoribus, verticillastris omnibus distinctis globosis dense multifloris, bracteis subulatis calyce brevioribus, calycis tubulosi membranacei basi villosi dentibus lanceolato-subulatis erectis brevibus.

Hab. in Brasilia: ad Fazenda do Pari provinciæ Minas Geraes *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Species inter *Minthidium* et *Apodotem* media, an ad hanc sectionem referenda? Achenia lævia.

167. *H. ALBIDA* (Kunth! Nov. Gen. et Sp. Am. 2. 319), fruticosa floccoso-lanata, foliis subsessilibus ovatis obtusis vel supremis subulato-acuminatis crenatis basi rotundato-cuneatis rugosis, verticillastris laxis globosis distinctis, racemis subpaniculatis, bracteis brevibus setaceis, calyce fructifero subgloboso dense lanato, dentibus mollissimis setaceis tubo subæqualibus.

Hab. in Mexico: in regione temperata montium juxta lacus Cusco in convalle Sancti Jacobi et propter urbem Valladolid *Humboldt et Bonpland!* (*v. s. sp. in herb. Mus. Par. et Lambert.*)

* I have been unable to ascertain precisely the work in which this species was published by Zuccagni, but have seen specimens sent by him from some Italian garden.

Rami et folia lana alba subfloccosa dense vestiti. Folia superiora minora, floralia linearia subulato-acuminata, verticillastro vix longiora. Corolla vix calyce longior. Achenia subinflata, ovato-rotundata, compressa. In speciminibus in Mexico a Moçino et Sessé lectis calyces lana alba densissima omnino immersi.

168. *H. PUBESCENS*, suffruticosa tomentoso-pubescens, foliis subsessilibus oblongis acutiusculis serratis basi rotundatis subrugosis subtus pallidis, verticillastris parvis globosis multifloris remotis, racemis paniculatis, bracteis brevibus setaceis, calycis campanulati villosi dentibus rigidis subulatis tubum æquantibus demum stellato-patentibus.

Hab. in Nova Hispania *Moçino et Sessé!* (*v. s. sp. in herb. Lambert.*)

Rami obtuse tetragoni, pilis brevibus dense pubescentes. Folia sesquipollicaria, supra adpresso-pubescentia, subtus densius tomentosa, superiora subcanescentia. Panicula semipedalis, tomentosa. Verticillastri magnitudine *Pisi*. Calyces subsessiles, albo-villosi, dentes glabriusculi, subspinosi. Corollæ dentibus calycinis paullo longiores.

169. *H. MOCINIANA*, suffruticosa? pubescens, foliis breviter petiolatis cordato-ovatis duplicato-serratis rugosis, verticillastris globosis multifloris distinctis racemosis, racemis paniculatis, bracteis brevibus setaceis, calycis campanulati villosi dentibus rigidis subulatis glabris stellato-patentibus tubo duplo longioribus.

Hab. in Nova Hispania *Moçino et Sessé!* (*v. s. sp. in herb. Lambert.*)

Pubescentia subrubiginosa. Folia 1-1½-pollicaria, exacte cordiformia, subtus pallida, utrinque leviter pubescentia, floralia caulinis conformia sed minora, superiora verticillastro breviora. Panicula præcedentis. Verticillastri 10-15-flori, dentibus calycinis subspinosi echinati. Corolla dentibus calycinis dimidio brevior.

170. *H. SPINULOSA*, suffruticosa? tenuiter pubescens, foliis petiolatis ovatis acuminatis serrulato-crenatis basi cordatis, verticillastris globosis multifloris distinctis racemosis, racemis paniculatis, bracteis brevibus setaceis, calycis ovati pubescentis dentibus rigidis subulatis glabris stellato-patentibus tubo brevioribus.

Hab. in Nova Hispania *Moçino et Sessé!* (*v. s. sp. in herb. Lambert.*)

Caules et folia tenuissime rufo-pubescentia vel demum glabrata. Folia 1½-2-pollicaria, tenuiter crenulata vel serrulata, basi late cordata vix rugosa et subcoriacea, floralia verticillastro breviora. Verticillastri majores quam in *H. cordifolia*, dentibus calycinis etiam per anthesin stellato-patentibus spinosis echinati, sed dentes duplo breviores, et tubus calycis major quam in *H. cordifolia*.

171. *H. STELLULATA*, herbacea, ramis rubiginoso-villosis, foliis breviter petiolatis ovatis acutis serrato-crenatis basi rotundatis rugosis villosis, racemis paniculatis, verticillastris dense globosis, bracteis parvis setaceis, calycis ovati villosi dentibus subulatis stellato-patentibus.

Hab. in Mexico: ad Cuernavaca et Toluco *Berlandier!* (*h. s. sp. comm. a cl. De Candolle et a cl. Presl e collect. Hænkeana.*)

Caules erecti, ramosi, 4.5-pedales. Folia utrinque villosa, floralia inferiora conformia, superiora minuta bracteæformia. Panicula ampla, fere pedalis, terminalis, rubiginosa. Verticillastri distincti, subremoti, numerosi. Calyces parvi, fauce intus parum villosa, dentibus subæqualibus subrecurvis. Corolla pubescens, calyce vix longior, lobis subæqualibus, infimo parum saccato.

172. *H. SCOPARIA* (Poit.! Ann. Mus. Par. 7. 475. t. 31. f. 2), fruticosa, ramis glabris angulis aculeatis, foliis brevissime petiolatis

linearibus obtusis integerrimis subdenticulatisve glabris, verticillastris laxis remotis 2-10-floris, calycis glabriusculi dentibus ovatis erectis obtusis.

Satureia americana, *Poir. ! Dict. 6. 571.*

Satureia condæa. *Juss. ex Poir. l. c.*

Hab. in Americæ æquinoctialis insulis Porto Rico et Sancti Dominici *Bertero ! &c. (v. s. sp. in herb. plur.)*

Fruticulus ramosus, ramorum anguli hinc inde aculeis brevibus reflexis aucti. Petioli brevissimi, articulati. Folia basi parum angustata, integerrima vel hinc inde denticulata, uninervia, minutissime glandulosa, margine sæpe revoluta, et ad axillas fasciculata, floralia conformia. Flores minuti, nunc solitarii, sæpius 6-10 in verticillastro laxo dispositi. Calyx floriger ovato-campanulatus, glaber vel tenuissime pubescens, dentibus tubi latitudine dimidio brevioribus, fructifer declinatus, subgloboseus, faux intus nuda. Corolla glabra, vix calycem excedens, lobis 4 superioribus subæqualibus oblongis obtusis, infimo saccato. Genitalia inclusa, declinata. Achenia lato-ovata, compresso-triquetra.

173. *H. VERTICILLATA* (Jacq. Ic. Rar. 1. t. 113), suffruticosa, ramis erectis pubescentibus vel pilosis, foliis breviter petiolatis lanceolatis acutis serratis basi rotundato-angustatis tenuissime pubescentibus, verticillastris laxiusculis plurifloris distinctis racemosis, calycis ovati glabri dentibus erectis ovato-lanceolatis.

Mentha hyptiformis, *Lam. Dict. 4. 110.*

Hab. in America æquinoctiali: in Mexico ad vias prope Papantla *Schiede et Deppe !* in ins. Sancti Dominici *Bertero ! Poiteau ! (v. s. sp. in herb. plur.)*

Caulis erectus, pedalis et ultra, angulis lævibus. Petioli basi extus glandula semiannulari notati et subarticulati. Limbus 1-2-pollicaris, penninervius. Folia floralia caulinis conformia, sed minora. Flores minuti, breviter pedicellati, sæpe penduli. Calyces striati. Corollæ albidæ, vix calycem excedentes. Genitalia breviter exserta. Achenia oblonga, glabra, lævia.

174. *H. FASCICULATA* (Benth. in Herb. Mus. Reg. Berol. MSS.), herbacea glabra vel tenuiter pubescens, foliis petiolatis ovatis acutis serratis rugosiusculis utrinque viridibus, racemis elongatis paniculatis, verticillastris laxis plurifloris, bracteis minutis setaceis, calycis fructiferi aucti glabri dentibus ovatis acutis tubo multoties brevioribus.

Hyptis undulata. *Schranck in Denkschr. Bot. Gesellsch. Regensb. 2. 51 ?*

Hippothronia undata. *Schranck in Syll. Pl. Soc. Ratisb. 1. 85 ?*

Hab. in Brasilia: ad vias circa habitationes et in locis humidis provinciæ Rio Janeiro vulgaris *Pohl ! Martius ! A. de St. Hilaire ! Sello ! &c.* circa Joao Gomes provinciæ Minas Geraes (specimina magis tomentosa) *Pohl !* et in rupibus in Serra San Jose ejusdem provincia (specimina glabriora) *A. de St. Hilaire ! (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. Bras. plur.)*

Caulis erectus, 1½-3-pedalis, apice paniculato-ramosus, tenuiter pubescens, obtuse tetragonus, angulis lævibus. Folia nunc glabra, nunc utrinque puberula, subtus glanduloso-punctata, floralia infima conformia, superiora minora sessilia, suprema minuta bractæformia integerrima lanceolata vix petiolata. Verticillastri nunc regulariter globosi, 10-40-flori, nunc depauperati, 2-3-flori, foliosi, proliferi. Calyces floriferi ovato-campanulati, fructiferi valde aucti, æquales, virides, 10-nervii, venosi, superne ampliati subplicati, fauce intus nuda, dentibus erectis vel patentibus. Corolla minuta, purpurascens. Achenia oblonga, minuta. Affinis *H. verticillata*, differt foliis latioribus rugosis, calycibus fructiferis ampliatis, &c.

175. *H. FASTIGIATA* (Benth. in Herb. Mus. Reg. Berol. MSS.),

herbacea adscendens, foliis petiolatis ovatis acutis duplicato-serratis basi rotundatis supra viridibus villosis subtus cano-pubescentibus, racemis fastigiato-paniculatis, verticillastris laxis paucifloris, bracteis minutis setaceis, calycis fructiferi aucti glabri dentibus ovatis acutis tubo multoties brevioribus.

Hab. in Brasilia *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

A *H. fasciculata* differt villositate et panicula coarctata densiore, verticillastris numerosis laxioribus plerumque 2-6-floris.

176. *H. ERIOCALYX* (St. Hil. MSS.), herbacea, caule adscendente rufo-tomentoso, foliis petiolatis ovatis acutis serrato-crenatis basi rugosis supra villosis subtus rufo-tomentosis, racemis elongatis paniculatis, verticillastris laxis plurifloris, bracteis minutis setaceis, calycis lanati fructiferi aucti dentibus ovatis acutis tubo multoties brevioribus.

Hab. in Brasilia: ad rivulum Simeon Pereira provinciæ Minas Geraes *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

A *H. fasciculata*, cui habitu affinis, characteribus datis abunde differt.

177. *H. VEPRETORUM* (Mart. MSS.), fruticosa, foliis petiolatis parvis ovatis obtusis subcrenatis basi rotundatis subcoriaceis glabriusculis supra lucidis subtus pallidis reticulatis, verticillastris 2-6-floris secundis axillaribus, calycis fructiferi tubulosi glabri dentibus brevibus ovato-lanceolatis.

Hab. in Brasilia: in campis deserti inter Minas Novas et Rio de San Francisco provinciæ Minas Geraes *Martius!* (*v. s. sp. in herb. Mus. Reg. Monac.*)

Frutex ramis divaricatis tomentoso-pubescentibus. Folia caulina 6-9 lineas longa, floralia subrotunda 2-3-linearia, suprema paullo majora axillis plerumque sterilibus. Bracteæ subnullæ. Calyx fructifer 3 lineas longus, 10-nervius, et transversim reticulatus. Corolla calycem breviter superans.

178. *H. VESICULOSA*, caule elato ramoso tenuissime ferrugineo-tomentoso, foliis breviter petiolatis oblongo-ellipticis acutis basi cuneatis crenulatis rugosis subtus cano-tomentosis, verticillastris paucifloris subsecundis distinctis racemosis, racemis paniculatis, bracteis minutis, calycibus campanulatis fructiferis vesiculoso-inflatibus membranaceis venosis, ore contracto, dentibus brevibus setaceis.

Hab. in Americæ meridionalis provincia Guayaquil *Tafalla!* (*v. s. sp. in herb. Lambert.*)

Species distinctissima. Folia *Buddleiæ salviaefoliæ*, 4-6 poll. longa, 1-1½ lata, floralia parva, suprema verticillastro subbreviora. Calyces florigeri parvi, rugosi, tomentosi, fructiferi *Pisi* magnitudine, globosi, reticulato-venosi.

179. *H. CALIDA* (Mart. MSS.), fruticosa, ramis pubescentibus, foliis breviter petiolatis rotundatis obtusissimis subcrenatis rugosis subtus canescentibus floralibus minutis cymis sessilibus laxis in racemo denso subramoso approximatis, calycibus pedicellatis tubulosis, ore æquali truncato, dentibus subulatis strictis tubo brevioribus.

Hab. in Brasilia: in Serra de San Antonio in deserto Serro Frio provinciæ Minas Geraes *Martius!* (*v. s. sp. in herb. Mus. Reg. Monac.*)

Frutex ramis divaricatis. Folia vix semipollicaria, subtus venis valde prominentibus margine sæpius revolutis, in parte caulis superiore remota. Racemus

3-5-pollicaris, basi ramosus, floribus numerosis parvis. Verticillastri 10-15-flori, pedunculo communi ramisque cymarum brevissimis, pedicellis calyce longioribus. Bracteæ brevissimæ. Calyces fructiferi vix aucti sesquilineam longi. Corolla vix calyce longior. Species inter *Minthidium* et *Pectinariam* media.

SECTIO XVI. BUDDLEIOIDES.

Cymæ pedunculatæ subcapitatæ multifloræ numerosæ paniculatæ. Bracteæ minutæ. Calyces subsessiles tubulosi campanulati, dentibus abbreviatis, fauce intus nuda. Corollæ tubus exsertus extus tomentosus. Frutices elatæ, facie Buddleiarum.

When first I examined the *H. membranacea*, I had considered it as a distinct genus, characterised by the compressed achenia surrounded by a broad membranaceous wing; but this character does not exist in the *H. Tafallæ*; and in several species of *Hypenia* and *Sia-gonarrhen* the achenia have a tendency to a similar expansion, and bear also some resemblance to *Buddleioides* in habit.

180. *H. MEMBRANACEA* (Benth. in Herb. Berol. MSS.), fruticosa rufo-tomentosa, foliis petiolatis oblongo-ellipticis basi rotundato-cuneatis supra asperrimis subtus rufo-tomentosis, fasciculis florum pedunculatis laxis numerosis multifloris late paniculatis, bracteis minutis, calycibus breviter pedicellatis urceolatis rufo-tomentosis, dentibus æqualibus brevissimis obtusis.

Hab. in Brasilia: ad Chapeo d'Uvas et Barbacena provinciæ Minas Geraes *Pohl!* in sylvis cæduis prope San Bartholomeo inter Minas Novas *A. de St. Hilaire!** in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

Frutex 7-8-pedalis. Rami obtuse tetragoni, sulcati, tomento rufo furfuraceo vestiti. Folia 4-5-pollicaria, breviter acuminata, margine tenuiter crenato-serrata; floralia infima conformia, superiora parva cuneiformia, suprema minuta uti bracteæ lineari-setacea. Panicula laxè ramosa. Pedunculi 3-6-lineares, 10-15-flori. Pedicelli calyce breviores. Calyx floriger ovato-tubulosus, 2 lin. longus, dentibus brevissimis obtusis, fructifer conformis, vix elongatus. Corolla 4 lin. longa. Tubus exsertus, æqualis, subincurvus, extus pubescens. Limbi lobi 2 supremi ovati patentes, 2 laterales breves erecti, infimus dejectus acuminatus saccatus. Achenia compressa, ala membranacea latissima cincta.

181. *H. TAFALLÆ*, fruticosa tomentosa, foliis petiolatis oblongo-lanceolatis basi cordatis supra rugosis lucidis glabris subtus cano-tomentosis, fasciculis florum pedunculatis laxis multifloris paniculatis, bracteis minutis setaceis, calycibus breviter pedicellatis elongatis tubuloso-campanulatis æqualiter 5-dentatis tomentosis, corollis calyce subduplo longioribus.

Hab. in Peruvia *Tafalla!* (*v. s. sp. in herb. Lambert.*)

* In M. de St. Hilaire's collection there is a small specimen from the campos at Itabira, in the province of Minas Geraes, which has a rather more woolly and softer appearance, but which is not sufficient to determine whether it really belongs to the same species. M. de St. Hilaire observes that it is called *Carvalho de agoa* because its wood is very aqueous, and that it contains a considerable quantity of potassium.

Frutex facie *Buddleiæ*. Folia 4 poll. et ultra longa. Pedunculi 3-4-pollicares, 4-fidi, ramis 2-3-chotomis. Flores ad apices ramorum paniculato-glomerati, numerosi, breviter pedicellati. Calyces basi longe attenuati, 2-5 lin. longi, albo-tomentosi, apice purpurascens, dentibus brevibus lanceolatis. Corolla extus tomentosa, tubo tenui exserto; lobis superioribus ovatis obtusis, infimo oblongo acuto cymbiformi. Stamina corollam æquantia. Stylus exsertus, breviter bilobus, stigmatibus planis obtusis æqualibus. Achenia oblonga, obtusa, plana, aptera.

SECTIO XVII. UMBELLARIA.

Cymæ pedunculatæ umbellæformes plurifloræ. Bractæ minutæ setacæ. Calyces pedicellati tubulosi, dentibus lanceolatis setaceisve, fauce intus nuda. Corollæ tubus inclusus vel exsertus.

Two species dissimilar in habit, but both of them allied to *Siagonarrhen*, and to some species of *Minthidium*.

182. *H. RHABDOCALYX* (Mart. MSS.), fruticosa, ramis tomentoso-pubescentibus, foliis breviter petiolatis subrotundis argute serratis basi cordatis rugosis utrinque molliter pubescentibus floralibus conformibus, cymis axillaribus umbellæformibus rigidis paucifloris, calycibus pedicellatis tubulosis rigidis æqualibus pubescentibus, dentibus subulatis strictis tubum æquantibus, corolla dentes calycinos æquante.

Hab. in Brasilia: in graminosis ad Rio Janeiro et in montibus ad Tijuca provinciæ ejusdem nominis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Species foliorum forma, inflorescentia, et calyce distinctissima. Folia 6-9-linearia, crassiuscula, subtus venosa, utrinque pube brevi molli vestita. Cymæ vix folio longiores, pedunculo communi 3-4-lineari. Bractæ minutæ. Pedicelli 2-3-lineares. Calyx 10-nervis, rigidus, extus molliter pubescens, intus glaberrimus. Staminum filamenta glabra. Achenia ovoidea, lævia.

183. *H. TOMENTOSA* (Poit. ! Ann. Mus. Par. 7. 469), suffruticosa, ramis floccoso-tomentosis, foliis breviter petiolatis ovato-oblongis obtusis crenatis basi rotundatis rugosis utrinque tomentosis, cymis axillaribus umbellæformibus pedunculatis multifloris, bracteis minutis setaceis, calycibus pedicellatis tubuloso-campanulatis elongatis albo-lanatis, dentibus æqualibus acuminatis.

Hab. in Mexico: prope Actopan regionis calidissimæ *Schiede et Deppe!* juxta Acapulco *Humboldt et Bonpland!* (v. s. sp. in herb. Mus. Par., Mus. Reg. Berol. et Lambert.)

Rami 1½-2-pedales, ramosi, tomento albido vel flavescente floccoso demum deciduo vestiti. Folia 1-1½ poll. longa, subtus venosa tomento densiore. Pedunculi semipollicares, 6-10-flori, pedicelli 2-3 lin. longi, dense albo-lanati. Calyces 4 lin. longi, lana alba præsertim basi vestiti, dentes lanceolato-acuminati. Corolla exserta, extus pubescens.

SECTIO XVIII. SIAGONARRHEN.

Siagonarrhen. Mart. MSS.

Cymæ regulariter dichotomæ multifloræ racemosæ vel rarius difformes, in paniculam elongatam coarctatam dispositæ. Bractæ setacæ.

June 1833.

Calyx subsessilis tubuloso-campanulatus incurvus, ore obliquo, dentibus lanceolatis acutis vel rarius obtusis, fauce intus nuda. Corolla cærulea, tubo plerumque breviter exserto. Filamenta villosissima. Frutices vel rarius herbæ elatæ, plerumque plus minusve albo-tomentosi, habitu Anisomelis.

184. *H. LEUCOPHYLLA* (Pohl Ic. ined.), ramis basi glabris superne subfloccoso-tomentosis, foliis breviter petiolatis ovato-oblongis obtusis crenulatis basi rotundatis supra nitidis scabriusculis subtus albo-tomentosis, cymis pedunculatis dichotomis densis multifloris, bracteis setaceis calyce triplo brevioribus, calycibus subsessilibus tubuloso-campanulatis elongatis incurvis albo-lanatis, dentibus lanceolatis acutis.

Hab. in Brasilia: a Rio Jequitinhonha usque ad Barreros provinciæ Minas Geraes *Pohl!* in summo monte Itambe et in campis ad Tepico in Serro Frio ejusdem provinciæ *Martius!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Frutex ramis obtuse tetragonis, tomento brevissimo subfarinoso canescentibus, demum denudatis. Folia 1-2-pollicaria, subcoriacea, subtus reticulata tomento brevissimo candido, floralia inferiora conformia sed parva, suprema minuta. Verticillastri nunc omnes remoti, racemosi, ex cymis regulariter dichotomis formati, rarius ad apices ramorum paniculam densam formantes, cymarum ramis irregulariter elongatis. Calyx *H. scabræ*, sed minor, fructifer parum auctus, transverse reticulatus, intus glaber, ore obliquo. Corolla rubra, extus villosa, tubus breviter exsertus. Filamenta breviter pilosa. Achenia compressa, margine subalata.

185. *H. LAURIFOLIA* (St. Hil. MSS.), fruticosa, ramis erectis tomentosiusculis, foliis petiolatis oblongo-lanceolatis acutis crenulatis basi cuneatis utrinque viridibus glabris vel supremis subtus tomentosiusculis, cymis pedunculatis dichotomis densis multifloris, bracteis setaceis parvis, calycibus subsessilibus tubuloso-campanulatis incurvis albo-lanatis, dentibus lanceolatis acutis.

Hab. in Brasilia: in arenosis prope Penha inter Minas Novas *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Habitus *H. leucophyllæ*, sed racemus laxior, verticillastri remoti, et flores minores pauciores. Folia longe diversa, plerumque 3-pollicaria. "Caulis 3-6-pedalis, lignosa, debilis, parum ramosa. Corolla pallide cærulea" (*St. Hil.*).

186. *H. SCABRA* (Benth. in Herb. Mus. Reg. Berol. MSS.), fruticosa, ramis tomentosis, foliis breviter petiolatis ovatis ellipticisve basi rotundato-cordatis rugosis supra scaberrimis subtus vel floralibus utrinque albo-tomentosis, cymis pedunculatis numerosis multifloris racemoso-paniculatis, bracteis minutis setaceis, calycibus breviter pedicellatis tubuloso-campanulatis elongatis albo-tomentosis, dentibus æqualibus lanceolatis acutis.

Hab. in Brasilia: in descensu Serra de Santo Antonio inter Tabuhiros Cobertos in Serro Frio provinciæ Minas Geraes *Martius!* ad margines sylvarum ad Alto dos Bois inter Minas Novas *A. de St. Hilaire!* in provincia Rio Janeiro? *Schott!* in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil., Endlicher, et Mus. Reg. Monac.)

Frutex humanæ altitudinis, basi crassitie 1-2 poll. cortice pallido rimoso, ramis erecto-patentibus obtuse tetragonis subteretibus breviter floccoso-tomentosis demum glabratibus. Folia caulina infima subrotunda, superiora elliptica 3-4-pollicaria basi vix cordata sinubus clausis, suprema minora basi rotundata, floralia inferiora parva

subrotunda, cæterum caulinis subconformia, suprema minuta bracteæformia. Panicula parum ramosa, elongata, densiflora, albo-tomentosa. Pedunculi calyce breviores, 6-12-flori. Bracteæ minutæ. Calyces 4 lin. longi, forma *Anisomelis ovati*, basi attenuati, parum incurvi, fauce intus nuda, ore obliquo, dentibus longitudine latitudinem tubi æquantibus. Corollæ extus pubescentes, pallide lilacino-cœruleæ, laciniis superioribus basi albis lilacino-striatis. Tubus calyce vix longior, incurvus. Limbi lobi superiores subpatentes, laterales erecti, infimus acuminatus, basi utrinque dente notatus, callo transverso albido. Filamenta basi pilosa. Stylus brevissime bifidus. Achenia compressa, ala membranacea, vix latitudinem dimidio achenii æquante cincta. Habitus *Gomphostemmatidis*.

187. *H. CANA* (Pohl Ic. ined.), ramis subfloccoso-tomentosis, foliis breviter petiolatis ovali-rotundatis obtusissimis emarginatisve mucronulatis vix crenulatis basi rotundatis supra tomentoso-scabris subtus et superioribus utrinque cano-tomentosis, cymis pedunculatis dichotomis laxis paucifloris, bracteis setaceis minutis, calycibus pedicellatis tubuloso-campanulatis incurvis albo-lanatis, dentibus lanceolatis acutis.

Hab. in Brasilia: ad Rio Abaite provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Frutex ramis divaricatis. Folia inferiora 4-pollicaria et ultra. Corolla profunde lobata, calyce duplo longior, extus pubescens, tubo calycem æquante. A *H. scabra* differt foliis caulinis rotundioribus apice emarginatis, panicula laxiore, corollis majoribus, &c.

188. *H. SORDIDA* (Pohl Ic. ined.), ramis subfloccoso-tomentosis, foliis breviter petiolatis ovali-rotundatis obtusissimis mucronatis vix crenatis basi rotundatis cordatisve utrinque tomentosis subtus albescentibus, cymis pedunculatis dichotomis densis multifloris, bracteis setaceis, calycibus subsessilibus tubuloso-campanulatis elongatis incurvis albo-lanatis, ore obliquo, dentibus lanceolatis acutis.

Hab. in Brasilia: ad Barbacena, Oliveira et Villa Rica provinciæ Minas Geraes *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Affinis *H. canæ*, sed flores densiores, calyces longiores.

M. Pohl considers this and the preceding species as perfectly distinct from my *H. scabra*, to which they bear a very great resemblance. Not having the means of comparing the fine set of specimens in the Brazilian Museum at Vienna with those of Sello, Martius, Schott, and St. Hilaire, which I have now before me, I am obliged to leave the above specific characters as I framed them at Vienna, on the supposition that the species were good.

189. *H. ALTISSIMA* (St. Hil. MSS.), fruticosa elata, ramis subfloccoso-tomentosis, foliis petiolatis oblongis obtusiusculis tenuissime crenulatis basi rotundatis rugosis utrinque cano-tomentosis, racemo amplo, cymis pedunculatis dichotomis laxiusculis multifloris, bracteis setaceis, calycibus subsessilibus tubuloso-campanulatis incurvis viscoso-pubescentibus, ore obliquo, dentibus lanceolatis acutis.

Hab. in Brasilia: in campis prope pagum Meiaponte et alibi in parte meridionali provinciæ Goyaz *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Arbuscula circiter 15-pedalis, tortuoso-ramosissima. Folia 1-1½-pollicaria, crassiuscula. Racemus fere pedalis, simplex vel basi ramis 2 oppositis auctus. Calyces nigrescentes, 2-5 lineas longi, dentibus 3 superioribus majoribus subpatentibus. Corolla purpureo-cœrulea, incurva, tubo breviter exserto. Filamenta villosa. Achenia valde compressa.

190. *H. LATIFOLIA* (Mart. MSS.), fruticosa, ramis molliter velutino-pubescentibus, foliis petiolatis lato-ovatis obtusis crenatis basi

rotundatis subcomplicatis crassissimis rigidis supra velutino- subtus albo-tomentosis, panicula coarctata densiflora subsecunda, floribus irregulariter cymosis secus ramos solitariis sessilibus, bracteis lanceolatis deciduis, calycis campanulati albo-villosi vix incurvi dentibus brevibus obtusiusculis.

Hab. in Brasilia: in deserto ad Serra de Santo Antonio in Serro Frio provinciæ Minas Geraes *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Rami crassi, duri, obtuse tetragoni, pilis brevibus adpressis vel subpatentibus, in parte superiore caulis albescentibus dense vestiti. Petioli semipollicares. Folia 3-4 poll. longa, 2-3 lata, superiora angustiora. Panicula 6-10-pollicaris, nunc thyrsoides, nunc ramis inferioribus divaricatis elongatis. Verticillastri interdum fere normaliter cymiformes, pedunculo communi utrinque brevi, ramis elongatis subbifidis vel irregulariter ramosis. Flores secus ramos alterni. Bracteæ uti folia floralia submembranaceæ, calycem fere æquantes. Calyx floriger dense albo-tomentosus, subincurvus, vix 2 lin. longus, fructifer parum auctus, campanulatus, æqualis, pubescens, intus glaber. Corollæ extus pubescentes, calyce plus duplo longiores, tubo calycem æquante, limbo profunde lobato. Stamina filamenta villosa. Achenia compressa, margine subalata.

Huic affinis occurrit in herb. Martiano ex interiore provinciæ Minas Geraes species nova, panicula elongata, corollis parvis, et calycibus acutissime dentatis distinctissima, sed folia in speciminibus suppetentibus desunt; et ideo describere nequivi.

191. H. ? *SALVIÆFOLIA* (Pohl Ic. ined.), fruticosa, ramis molliter adpresse pubescentibus, foliis petiolatis oblongo-ellipticis obtusis crenatis basi rotundatis rugosis molliter utrinque villosis subtus albescentibus, panicula coarctata racemiformi secunda axi pubescente, floribus solitariis approximatis subsessilibus, calycibus tubulosis incurvis albo-villosis, ore obliquo, dentibus abbreviatis obtusissimis truncatis.

Hab. in Brasilia: ad Calumbis in provincia Minas Geraes *Pohl!* (v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.)

Caules elati. Folia 3-pollicaria. Panicula sesquipedalis, angusta; rami inferiores irregulariter elongati complures fasciculati, superiores irregulariter cymæformes, supremi in verticillastrum contracti. Calyx dente supremo cæteris majore, sed non bilabiatus ut in *Eriope*. Corolla fere *Eriopes*, extus pubescens, calyce fere duplo longior, tubo breviter exserto. Filamenta basi dense lanata. Achenia ovoidea, lævia, nec compressa. Species inter *Hypeniam*, *Siagonarrhen*, et *Eriopen* quasi intermedia.

SECTIO XIX. HYPENIA.

Hypenia. Mart. MSS.

Flores subsolitarii subsessiles vel sæpius pedicellati, dispositi secus ramos paniculæ nunc laxissimæ divaricatæ, nunc coarctatæ racemiformis ramis cymæformibus vel spicæformibus. Bracteæ sub calycem binæ minutæ, rarius setaceæ laxæ calycem subæquantes. Calyx tubuloso-campanulatus æqualis vel rarius incurvus, fructifer auctus dentibus lanceolatis acutis vel rarius obtusis. Corollæ tubus inclusus vel longe exsertus plerumque coccineus. Filamenta villosissima. Herbæ suffruticesve basi plerumque tomentosæ pilosæ foliis subcoriaceis, superne paniculatæ subnudæ glaberrimæ glaucæ.

Most of the species have a very remarkable habit; but I have been

unable to separate them from *Siagonarrhen* by any character but that of the inflorescence, and even that is the same in the *H. densiflora*, *brachystachys*, and *melochioides*, as in the preceding section.

192. *H. DENSIFLORA* (Pohl Ic. ined.), caule elato basi vix piloso, foliis petiolatis ovato-lanceolatis acutiusculis crenatis basi rotundatis crassis supra scabriusculis subtus reticulato-rugosis tomentoso-pubescentibus, panicula racemiformi coarctata glaberrima glauca, ramis spicæformibus, floribus subsessilibus dense approximatis, calycis tubulosi incurvi dentibus lanceolatis acutis, corollæ tubo incluso.

Hab. in Brasilia: ad Caretão, Engenho Santo Antonio et Trahiras provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Folia 1-2-pollicaria. Calyces membranacei, subglabri. Corollæ glabræ.

193. *H. BRACHYSTACHYS* (Pohl Ic. ined.), caule basi piloso-hispido, foliis parvis subsessilibus ovatis obtusis crenatis basi cordatis rugosis tomentosiusculis villosisve, floralibus bracteisque minutis ovatis setaceisve acutis, panicula coarctata glaberrima glauca, ramis spicæformibus, floribus subsessilibus approximatis, calycis pubescentis tubulosi incurvi reticulati dentibus brevibus obtusis, corollæ tubo vix exserto.

Hab. in Brasilia: in via a Rio Crixas ad Rio Maranhão provinciæ Goyaz *Pohl!* ad Tejora prope urbem Paracatù provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.)

Caulis erectus, 3-pedalis, parum ramosus, teres, superne in parte glauca hinc inde in vesiculis ovoideis cavis inflatus. Folia semipollicaria, similia foliis *H. crenata*, sed breviora. Paniculæ rami primarii valde elongati, apice spicas breves laxiusculas irregulares ferentes, flores fere in verticillastos 6-10-flores approximati. Pedicelli calyce breviores, glaberrimi. Calyx florifer molliter pubescens, 2-2½-linearis, fructifer fere duplo longior, glabriusculus, rigidus, membranaceus, intus fere glaber, dentibus latitudine tubi brevioribus. Corolla pallida, violacea, extus pubescens, lobis brevibus. Filamenta villosa. Styli lobi breves, obtusi. Achenia ovoideo-triquetra, apice truncata, angulis acutis lævia.

194. *H. MELOCHIOIDES* (St. Hil. MSS.), caule basi piloso, foliis petiolatis ovato-oblongis lanceolatisve acutiusculis serrato-crenatis basi rotundato-crenatis crassis rugosis supra pubescentibus subtus cano-tomentosis, floralibus bracteisque parvis lanceolato-subulatis, panicula coarctata racemiformi glaberrima glauca, floribus subsessilibus approximatis, calycis pubescentis tubuloso-campanulati dentibus lanceolato-subulatis auctis, corollæ tubo vix exserto.

Hab. in Brasilia *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caules erecti, pluripedales. Habitus *H. brachystachydis*, at panicula simplicior et vesiculæ minores. Folia fere *H. Salzmanni*, sed crassiora. Rami paniculæ brevissimi, superiores in verticillastris condensati. Calyces, dentes, et bractæe longe acuminati.

195. *H. PRUINOSA* (Pohl Ic. ined.), caule elato, ramis basi piloso-hispidissimis et rubiginoso-tomentosis, foliis sessilibus rotundatis obtusis crenatis basi cordatis crassis supra scabris subtus lacunoso-rugosissimis, panicula ramosissima glaberrima glauca, floribus pedicellatis versus apices ramorum approximatis, bracteis minutis subulatis, calycibus tubulosis incurvis, ore obliquo, dentibus lanceolatis acuminatis, fructiferis auctis venosis transverse rugosis, corollæ tubo vix exserto.

Hab. in Brasilia: in Serra San Feliz provinciæ Goyaz *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Achenia ovoideo-compressa, lævia, aptera. Corolla extus pubescens.

196. *H. SIMPLEX* (St. Hil. MSS.), caule elato basi tomentoso-villoso, foliis subsessilibus ovatis obtusis crenatis basi rotundatis subcordatisve crassis rugosis utrinque tomentosis vel supra villosis, panicula laxa ramosissima glabra subglauca, pedunculis filiformibus unifloris, bracteis minutis setaceis, calycibus campanulatis subrectis, dentibus abbreviatis acutis, corollæ tubo subincluso.

Hab. in Brasilia: inter saxa in Serra Dourada in parte meridionali provinciæ Goyaz *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Folia pollicaria *H. melochioidis*, sed fere sessilia. Affinis *H. Salzmanni*, sed caulis erectior, simplicior, tomentosa nec pilosa, panicula ramosior, ramis brevioribus, et minus glauca.

197. *H. SALZMANNI*, fruticosa, ramis (foliatis) patentim pilosis, foliis petiolatis ovatis obtusis eroso-crenatis rugosis pubescentibus subtus pallidis, panicula laxissima subnuda glaberrima glauca, ramis elongatis, pedunculis filiformibus 1-3-floris, calycibus campanulatis venosis, dentibus æqualibus acutis, corollæ tubo vix exserto.

β tomentosa.

Hab. in Brasilia tropica: in sabulosis prope Bahia *Salzmann!* in saxosis montosis et campis altis ad villa do Rio das Contas et Caitete et ad flumen San Francisco provinciæ Bahiensis *Martius!* in pascuis prope Bom Jardim provinciæ Minas Geraes *A. de St. Hilaire!* (*h. s. sp. a Salzm. lectam et v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.*)

“Frutex ramosissimus, tripedalis (exclusis paniculis, quæ 1-2-pedales),” basi prostratus vel erectus, ramis divaricatis. Rami sub panicula foliosi, pilis longis patentibus villosi. Panicula in ramis elongatis tenuibus subramosis divisa, basi hinc inde sæpe ventricosum-tumida. Folia floralia ad basin pedunculorum linearia, glaberrima, 1-3 lin. longa. Pedunculi remoti, subsecundi, inferiores subtriflori. Bractæ sub pedicellis breves, minutæ, setacæ. Calyx floriger lineam longus, fructifer 2-linearis, inflatus, membranaceus, 10-nervius, glaberrimus. Corolla pallide cœrulea, calyce duplo longior, glabra. Tubus breviter exsertus. Limbi lobi 4 superiores subpatentes oblongi tubo æquales, 2 supremi striis purpureis notati, infimus saccatus. Achenia ovato-compressa, obtusissima, lævia. Var. *β* non differt nisi foliis utrinque tomentosis, subtus albis.

198. *H. CALOPHYLLA* (St. Hil. MSS.) elata, ramis superne paniculatis glaberrimis vix glaucis, foliis petiolatis amplis ovatis acuminatis sinuato-lobatis crenatis basi profunde cordatis supra scabris subtus dense albo-lanatis, paniculâ laxissima, ramis filiformibus, pedunculis brevissimis unifloris, bracteis minutis setaceis, calycibus fructiferis valde auctis glabris membranaceis subglaucis oblique campanulatis, ore brevissime 5-dentato, corollæ tubo vix exserto.

Hab. in Brasilia: in monte Morro d'Andaia dicto inter Minas Novas *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Caulis 5-pedalis, vesiculis amplis hinc inde inflatus, in speciminibus suppetentibus omnino glaberrimus, sed pars inferior deest. Folia 4-6-pollicaria, supra viridia, tuberculis elevatis scabra. Corollæ pro specie hujus sectionis minimæ, at calyces fructiferi 5-6 lin. longi.

199. *H. VITIFOLIA* (*Pohl Ic. ined.*), ramis basi piloso-hispidis superne paniculatis glaberrimis glaucis, foliis petiolatis lato-ovatis

acuminatis irregulariter crenatis et sinuato-lobatis basi profunde cordatis supra scabris subtus albo-canescens, panicula laxe divaricata, pedunculis filiformibus unifloris, calycibus glabris membranaceis, fructiferis valde auctis oblique campanulatis, ore brevissime 5-dentato, corollæ tubo longe exserto.

Hab. in Brasilia: ad Santa Cruz provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Caulis elatus, basi fruticosus. Folia floralia uti bracteæ minuta, subulata. Corolla coccinea. Achenia ovoidea.

200. *H. CRISPATA* (*Pohl Ic. ined.*), caule elato basi vix piloso, foliis petiolatis oblongis margine undulato-crenatis basi rotundatis crassissimis rigidis supra hirsutis subtus molliter villosissimis superioribus lanceolato-linearibus, floralibus bracteisque parvis lanceolatis, panicula coarctata glaberrima glauca, floribus secus ramos breves pedunculatis solitariis oppositis, calycibus tubuloso-campanulatis molliter villosis, dentibus lato-lanceolatis.

Hab. in Brasilia: in Serra Dourada provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

H. calycinæ affinis, sed characteribus datis distinctissima. Corollæ villosæ, calyce duplo longiores.

201. *H. COCCINEA* (*Mart. MSS.*), caule elato basi pubescente et pilis raris ciliato, foliis petiolatis ovato-lanceolatis oblongisve irregulariter dentatis basi rotundatis subcordatisve crassis supra villosis subtus tomentoso-pubescentibus, panicula laxissima subnuda glaberrima glauca, ramis pedunculisque subunifloris elongatis, bracteis subulatis, calycibus fructiferis elongatis subinflatis, dentibus lanceolatis acutis.

Hab. in Brasilia: in campis subalpinis petrosis in adscensu Montis Sincorã provinciæ Bahiensis *Martius!* in campis petræis prope Retira de Tras os Montes, in parte occidentali provinciæ Minas Geraes, et in sylvis cæduis arenosis prope pagum Penha inter Minas Novas *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Caulis e basi perenni erectus, humanæ altitudinis. Folia 2-3-pollicaria, subtus canescenti-tomentosa, infima breviora. Pedunculi inferiores sæpe ramosi, triflori. Calyx florifer *H. calycinæ*, at post anthesin valde elongatur, sed maturum non vidi. Corolla coccinea, fere *H. laxifloræ*, sed paullo brevior.

202. *H. PANICULATA* (*Benth. in herb. Mus. Reg. Berol. MSS.*), ramis basi villosis, foliis breviter petiolatis ovatis obtusis crenatis basi rotundatis crassis rugosis utrinque dense tomentoso-villosis, panicula laxissima subnuda glaberrima glauca, ramis elongatis, pedunculis filiformibus unifloris calyce pubescente subbrevioribus.

Hab. in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol.)

Frutex basi ramosus, foliosus, ferrugineo-tomentosus et patentim villosus, superne ample paniculatus, glaberrimus, glaucus, sed rarius inflato-tumidus. Calyx fructifer 5 lineas longus, campanulatus, membranaceus, venosus, extus glaber, intus albo-villosus, dentibus lanceolatis æqualibus acutissimis. Corolla coccinea, extus pubescens. Tubus calyce duplo longior. Limbi lobi multo breviores. Stylus longe exsertus. Achenia compressa, ovato-rotundata, aptera. Specimen unicum e Museo Regio Berolinensi communicatum mancum est, sed a *H. laxiflora* certe distinctum videtur.

203. *H. LAXIFLORA* (*Mart. MSS.*), ramis basi villosis, foliis

petiolatis rotundatis obtusis crenatis basi rotundatis crassis rugosis utrinque tomentoso-pubescentibus subtus reticulatis albescentibus, panicula laxissima subnuda glaberrima glauca, bracteis parvis ovatis ramis elongatis, pedunculis filiformibus unifloris calyce pubescente plus duplo longioribus, corollæ tubo calyce duplo longiore.

Hab. in Brasilia: in campis montosis ad Villa Rica et alibi provinciæ Minas Geraes *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Habitus *H. paniculata*, sed folia multo minora (6-9 lin. longa), longius petiolata, et minus villosa. Panicula ramosior, pedunculis duplo longioribus. Folia floralia minuta, sed latiora quam in *H. paniculata*. Bracteæ ovatæ, minutæ. Calyx viscoso-pubescent, parum incurvus, fructifer fere glaber, intus laxè lanatus, dentibus ovatis acutiusculis. Corolla speciosa, coccinea, extus pubescens, ultra pollicem longa, tubo longe exserto, supra subventricosus, fauce subcontracta; limbi lobis superioribus lato-oblongis obtusis.

204. *H. CALYCINA* (Pohl Ic. ined.), caule elato basi vix piloso, foliis petiolatis oblongo-ellipticis obtusis crenatis basi rotundatis crassissimis utrinque tomentoso-villosis superioribus angustioribus, panicula laxissima subnuda glaberrima glauca, ramis pedunculisque unifloris elongatis, bracteis cordato-amplexicaulibus, calycibus fructiferis elongato-campanulatis glabris, dentibus lanceolatis acutis.

Hab. in Brasilia: ad Serra do Chrystais et Trahiras provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Calyx fructifer 7-8 lin. longus. Corolla ultra pollicaris, glabra, coccinea. Achenia late compressa. Species pulcherrima, bracteis et foliis floralibus distinctissima.

205. *H. MACRANTHA* (St. Hil. MSS.), caule elato basi patentim piloso, foliis petiolatis inferioribus ovalibus superioribus oblongo-ellipticis lanceolatisve serrato-crenatis basi cuneatis coriaceis utrinque viridibus subscabris glabris vel patentim pilosis, panicula laxa subnuda glaberrima subglauca, ramis elongatis, pedunculis calyce paullo longioribus, bracteis parvis ovato-lanceolatis, calycibus fructiferis elongatis, dentibus lanceolatis acutis, corollis calyce subquadruplo longioribus.

Hab. in Brasilia: in terris auriferis prope pagum Paracatù provinciæ Minas Geraes vulgatissima *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Inter *H. calycinam* et *H. longifloram* media. A priore differt foliis glabris vel saltem pilosis, pedunculis brevioribus, et bracteis minoribus angustioribus; a *H. longiflora* foliis longioribus, bracteis ovato-lanceolatis, &c. Caulis 2-4-pedalis, simplex vel parum ramosus, hinc inde inflatus. Calyces et corollæ nunc glabri, nunc villosi. Corolla fere sesquipollicaris.

206. *H. LONGIFLORA* (Pohl Ic. ined.), ramis basi pilosis, foliis petiolatis ovato-oblongis vel rotundatis obtusis crenatis basi rotundatis crassis supra scabris subtus reticulato-rugosis rufo-pubescentibus, panicula laxissima subnuda glaberrima glauca, ramis elongatis, pedunculis filiformibus elongatis unifloris, bracteis parvis subulatis, calycibus campanulatis fructiferis auctis membranaceis reticulatis, dentibus lanceolatis acutis.

Hab. in Brasilia: in campis a Barbacena usque ad Paracatù provinciæ Goyaz *Pohl!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Calyx intus villosissimus, extus pubescens, demum glabratus. Corolla extus villosa, tubo calyce triplo longiore. Achenia ovoideo-compressa.

207. *H. RETICULATA* (Mart. MSS.), caulibus basi pubescentibus subpilosis, foliis petiolatis ovatis oblongis lanceolatisve duplicato-serratis basi cuneatis rotundatisve coriaceis supra glabris subscabris subtus reticulato-venosissimis ad venas tomentoso-pubescentibus, panícula laxissima subnuda glaberrima glauca, ramis pedunculisque unifloris elongatis, bracteis subulatis, calycibus fructiferis campanulatis, dentibus lanceolatis acutiusculis.

Hab. in Brasilia: in campis inter Rio do Rite et Rio Verde in via ad San João del Rey provinciæ Minas Geraes *Martius!* in campis herbidis circa eandem urbem et prope Carandai ejusdem provinciæ *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil. et Mus. Reg. Monac.*)

Radix lignosa, perennis, digiti minoris crassitie. Caulis 1-2½-pedalis, erectus, annuus, inferne subtetragonus, superne teres, raro inflatus. Folia forma valde variant, nunc lato-ovata, vix sesquipollicaria et basi rotundata, nunc oblongo-lanceolata, basi cuneata, 2-4-pollicaria. Pedunculi omnes uniflori, filiformes, calyce 2-4-plo longiores. Calyx fructifer 4-5 lin. longus, intus dense villosus. Corolla *H. coccineæ*, vel parum brevior. Stylus exsertus, apice brevissime bifidus, stigmatibus crassiusculis. Achenia ovoideo-compressa.

208. *H. GLAUCA* (St. Hil. MSS.), caule elato basi vix piloso, foliis petiolatis ovatis margine undulato-crenatis basi cuneatis crassis coriaceis utrinque viridibus supra scabris subglabris subtus reticulatis laxissime tomentosiusculis, panícula maxima, floribus secus ramos elongatos strictos breviter pedicellatis, bracteis parvis lanceolatis, calycibus campanulatis subglabris, dentibus lato-lanceolatis obtusis, corollæ tubo longe exserto.

Hab. in Brasilia: in pascuis prope habitationem Caxambu in campis Geraes provinciæ Sancti Pauli *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*)

Media inter *H. crispata* et *H. reticulata*. A priore differt glabritie foliorum et calycum et ramis paniculæ elongatis. A *H. reticulata* foliis majoribus crassioribus, calycibus brevius pedicellatis intus fere glabris, dentibus obtusis.

Species excludendæ.

H. CHAMÆDRYS Willd. = *Marsypianthes hyptoides*.

H. GLANDULOSA Sieb. = *Salvia occidentalis*.

H. INFLATA Spr. = *Marsypianthes hyptoides*.

H. LURIDA Spr. = *Marsypianthes hyptoides*.

H. PSEUDO-CHAMÆDRYS Poit. = *Marsypianthes hyptoides*.

H. STACHYODES Link = *Elsholtzia incisa*.

H. CHAMISSONIS, cited *Linnæa* 6. 570. was a MS. name I had at first given to a plant which I afterwards ascertained to be referable to some other species; but the correction was inadvertently omitted to be made in Chamisso's Herbarium.

H. MENTHODORA Schranck in *Syll. Pl. Soc. Ratisb.* 2. 56. is probably some already described species; at any rate it is not possible to determine it from his description, and as no specimen, alive or dry, has been preserved, it ought to be omitted altogether.

H. NEPALENSIS Lehm. *Sem. Hort. Hamb.* 1830. is precisely in the same predicament.

H. OBTUSIFOLIA Br. in *App. to Salt's Abyss.* has never been described.

H. POHLIANA Jacq. and *H. MARATHROSMA* Spreng. mentioned in some garden catalogues, have not, to my knowledge, been described.

XV. ERIOPE.

Eriope. Humb. et Bonpl. MSS.

Calyx turbinatus, florifer patens æqualiter quinquedentatus, fructifer nutans auctus, dentibus 3 superioribus in labium superius membranaceo-dilatatis, 2 inferioribus vix auctis in labium inferius dejectis, fauce intus lana alba densa clausa. Corolla declinata, tubo subexserto, ad faucem valde dilatata, limbi lobis 4 superioribus oblongis subæqualibus, 2 supremis erectis, 2 lateralibus patentibus, infimo abrupte dejecto saccato apice acuminato subbidentato. Stamina 4, didynama, declinata, inferioribus longioribus. Filamenta basi dense villosa. Antheræ ovato-reniformes, loculis confluentibus. Stylus apice subæqualiter bifidus, stigmatibus subconfluentibus. Achenia oblonga, subcompressa, lævia. Suffrutices fruticesve vel rarius herbæ perennes. Flores solitarii oppositi, secus axin racemi laxi simplicis vel paniculato-ramosi. Folia floralia minuta bractæformia per anthesin decidua. Bractæ in pedunculo sub calyce 2 minutissimæ.

A Brazilian genus allied to *Hyptis*, and especially to the section *Hyperia*, but remarkably constant both in habit and characters in all the species I have examined.

CONSPECTUS SPECIERUM.

Caulis superne glaberrimus subglaucus.

Folia 2-3-pollicaria ovato-oblonga vel lanceolata . . . 1. *E. HYPENIOIDES.*

Folia vix semipollicaria lato-ovata . . . 2. *E. MONTICOLA.*

Caulis superne pubescens vel tomentosus.

Folia crebra vix semipollicaria, internodiis folio brevioribus.

Folia utrinque glabra crassa rigida coriacea . . . 5. *E. CRASSIFOLIA.*

Folia utrinque molliter pubescentia complicata . . . 6. *E. PARVIFOLIA.*

Folia supra glabra sublucida subtus canescentia margine ciliata.

Folia ovato-lanceolata acuta . . . 4. *E. POLYPHYLLA.*

Folia ovalia obtusa . . . 3. *E. OBTUSATA.*

Folia ultra pollicaria vel laxa remota.

Racemi simplices vel vix ramis 1-2 instructi.

Folia rugosa villosa canescentia . . . 10. *E. COMPLICATA.*

Folia glabra vel vix pubescentia plerumque coriacea.

Caules herbacei complures erecti subsimplices . . . 8. *E. CRASSIPES.*

Caules herbacei procumbentes elongati ramosi . . . 9. *E. TEUCRIOIDES.*

Frutex ramosus . . . 7. *E. NUDIFLORA.*

Racemi paniculato-ramosi.

Folia subglabra coriacea . . . 11. *E. FÆTIDA.*

Folia mollia pubescentia vel villosa plerumque rugosa.

Folia ovato-lanceolata . . . 13. *E. MACROSTACHYA.*

Folia ovalia obtusa . . . 12. *E. ALPESTRIS.*

1. *E. HYPENIOIDES* (Mart. MSS.), fruticosa, caule basi piloso superne glaberrimo glauco, foliis breviter petiolatis ovatis oblongisve

acutis basi rotundatis cuneatisve coriaceis subtus albis, panicula ampla ramosa.

Hab. in Brasilia: in altis campis ad Rio da Contas provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Species habitu inter *Hypenias* et *Eriopes* media, sed characteribus omnino *Eriope*. Frutex est sexpedalis. Rami teretes, basi præsertim ad nodos ut in *Hypenias* pilis longis patentibus sordide albis hirsuti, superne uti panicula glaberrimi rore glauco induti. Folia 2-3-pollicaria, crassa, sæpius acute serrulata, nunc vix crenulata, juniora supra tomento brevi molli pallido velutina, demum glabrata, sub-lucida, infra valde reticulata, albo-tomentosa. Panicula pedalis et ultra, ramis inferioribus ramosis. Pedunculi tomentosi, vix calyce breviores. Bractæ minutæ, setacæ. Calyx florifer turbinatus, extus villosus, dentibus omnibus lanceolatis acutissimis, fructifer glabratus, dentibus ut in toto genere bilabiatim auctis. Corolla pallide cœruleo-rosea, striis cœruleis in parte superiore, calyce duplo longior, tubo dilatato exserto, extus pubescens.

2. *E. MONTICOLA* (Mart. MSS.), suffruticosa, caule basi cano-tomentoso superne glabro cœrulescente, foliis breviter petiolatis ovato-subrotundis coriaceis supra glabris lucidis scabriusculis subtus canescentibus margine ciliatis, panicula ramosa.

Hab. in Brasilia: in campis subalpestribus ad Sincorà provinciæ Bahiensis *Martius.* (v. s. sp. in herb. Mus. Reg. Monac.)

Suffrutex tripedalis. Rami duri, teretes vel vix basi tetragoni, superne tomento denudati et nigro cœrulescentes, at vix glauci. Folia vix ultra semipollicem longa, patentia, margine leviter dentata, subtus reticulata et cano-tomentosa. Panicula semipedalis, ramis plerumque simplicibus, juniores uti pedunculi et calyces florigeri tomentosi. Corolla pallide cœrulea, extus pubescens, tubo dilatato breviter exserto, limbo amplo.

3. *E. OBTUSATA*, suffruticosa, caule tomentoso-pubescente, foliis subsessilibus ovalibus obtusis subcrenatis coriaceis supra subrugosis subtus tomentosis margine ciliatis, racemis ramosis.

Hab. in Brasilia: in campis alpestribus provinciæ Bahiensis cum *E. polyphylla Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

In herbario Brasiliano Martiusi mixta fuit cum *E. polyphylla*, a qua meo sensu distincta est foliis obtusis latioribus sessilioribus et magis tomentosis, racemis brevioribus ramosis et villosioribus.

4. *E. POLYPHYLLA* (Mart. MSS.), suffruticosa, caule tomentoso-pubescente, foliis breviter petiolatis ovatis lanceolatisve acutis serratis coriaceis supra lucidis subtus subtomentosis margine ciliatis, racemis elongatis subsimplicibus.

Hab. in Brasilia: in campis subalpestribus ad Rio da Contas et Cayes provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Suffrutex humilis, basi valde ramosus et dense foliosus. Rami etiam superne tomentosi, nec glauci. Folia vix semipollicaria, sæpe complicata, basi rotundata, margine uti petioli pilis longis patentibus ciliata, supra glabra, lævia, subtus tenuiter tomentosa. Racemi semipedales, in specimine suppetente simplices. Flores præcedentium.

5. *E. CRASSIFOLIA* (Mart. MSS.), fruticosa, ramis pubescentibus, foliis sessilibus subimbricatis lato-ovatis acutis serratis crassis coriaceis utrinque glabris margine nudis, racemis simplicibus.

Hab. in Brasilia: in Serra das Lages et Sincorà provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Fruticulus 1-2-pedalis, erectus, habitu *E. polyphyllæ* similis, sed folia lata,

sessilia, densissima, suberecta, decussantia et fere imbricata, infra venosissima et minime tomentosa. Corollæ ut in præcedentibus dilute violaceæ, extus pubescentes, tubo vix exserto dilatato.

6. *E. PARVIFOLIA* (Mart. MSS.), suffruticosa, ramis tomentoso-pubescentibus, foliis subsessilibus ovatis acutis complicatis utrinque viridibus molliter tomentosis margine nudis, racemis numerosis subramosis.

Hab. in Brasilia: in sylvis Catingas ad Sincorà provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Suffrutex ramosissimus. Folia vix 3 lin. longa, in speciminibus siccis omnia complicata vel convoluta, uti rami, pedunculi, et calyces tomento brevi subvelutino pubescentia. Corolla *E. crassifoliæ*.

7. *E. NUDIFLORA* (Humb. et Bonpl. in Herb. Kunth. MSS.), suffruticosa, ramis hirsutissimis, foliis breviter petiolatis oblongis acutiusculis calloso-serratis basi cuneatis glabris coriaceis rugosis margine subciliatis, racemis simplicibus.

Hab. in America æquinociali: ad Maypure in Guiana *Humboldt et Bonpland!* (v. s. sp. in herb. Kunth.)

Suffrutex erectus. Folia sesquipollicaria. Corolla violacea, fauce ampliata, striis purpureis notata. Racemi laxi, terminales. Verticillastri interdum quadri-flori. Pedicelli filiformes, 2 lin. longi, glabri. Corolla calyce quadruplo longior, violacea, tubo vix exserto, fauce ampliata, striis purpureis notata, lobo infimo apice breviter bidentato.

8. *E. CRASSIPES* (Benth. in Herb. Mus. Reg. Berol. MSS.), suffruticosa, ramis erectis subsimplicibus pubescentibus, foliis subsessilibus ovatis obtusis crenatis vel lanceolatis acutis serratis glabriusculis, racemis elongatis simplicibus.

β acutifolia.

Hab. in Brasilia: in pascuis exaratis prope pagum San Jose in parte meridionali provinciæ Goyaz *A. de St. Hilaire!* in provincia Rio de Janeiro *Sello! Schott!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. Endlicher et St. Hil.)

Caules e basi crasso lignoso plures, erecti, semipedales pedalesve. Folia nunc (in var. *α*) semipollicaria, plerumque ovata vel superiora, tantum lanceolata, nunc (in var. *β*) omnia lanceolata, pollicaria et ultra, in utroque varietate pauca, remota, subaspera, plerumque glabra vel pilis raris utrinque munita, rigidiuscula, rarius tomentoso-pubescentia. Racemus 4-6-pollicaris, strictus. Corollæ lobus inferior basi utrinque dentatus, apice bicornutus.

9. *E. TEUCRIOIDES* (St. Hil. MSS.), herbacea (?) procumbens, ramis basi patentim pilosis superne pubescentibus, foliis breviter petiolatis ovatis obtusiusculis subcrenatis glabris subciliatis, racemis elongatis subsimplicibus.

Hab. in Brasilia: in sylvis cæduis exaratis prope Fazenda de Jose Caetano de Mello et in planitie inter Alto dos Bois et Villa do Fanado inter Minas Novas *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caules herbacei, elongati (an complures e basi lignoso?), tomento brevissimo pubescentes, et in parte inferiore uti margines foliorum plerumque pilis longis patentibus ciliati. Folia fere *E. nudicaulis*, sed plerumque minora, vix ultra semipollicaria. Internodia folio longiora. Petiolus 1-2 lin. longus. Racemus *E. nudicaulis*. "Corolla cærulea" (*St. Hil.*).

10. *E. COMPLICATA* (Mart. MSS.), fruticosa, ramis elongatis

tomentosis patentimque subpilosus, foliis petiolatis lato-ovatis obtusis crenatis basi rotundatis rugosis utrinque villosis subtus subincanis, racemis simplicibus albo-tomentosis.

Hab. in Brasilia: in alta planitie Chapada do Paranan provinciæ Minas Geraes et in sylvis Catingas et campis ad Sincorà provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Frutex orgyalis, sæpius incanus. Rami elongati, subflexuosi, racemis 1-3 paucifloris, terminales. Folia distantia, semipollicaria, molliter villosa, juniora subtus molliter albo-villosa, sæpe complicata. Corolla parva, cœruleo-violacea.

11. *E. FÆTIDA* (St. Hil. MSS.), fruticosa, ramis divaricatis basi patentim pilosis superne tomentoso-pubescentibus, foliis petiolatis ovatis acutiusculis serrato-crenatis glabriusculis coriaceis, racemis paniculato-ramosis.

Hab. in Brasilia: in deserto occidentali provinciæ Minas Geraes et in pascuis exaratis prope pagum Corumba in regione meridionali provinciæ Goyaz *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Frutex erectus, 2-3-pedalis. Folia 1½-3-pollicaria, sæpe complicata, juniora ad venas pubescentia, vetustiora glabrata, supra lucida, sæpe glutinosa. Panicula elongata, laxa, ramis valde divaricatis. "Corolla purpurascens. Odor fœtidus" (St. Hil.).

12. *E. ALPESTRIS* (Mart. MSS.), fruticosa, ramis petiolisque patentim pilosissimis, foliis petiolatis ovalibus obtusis crenatis basi rotundato-cuneatis rugosis utrinque villosis subtus vix canescentibus, racemis paniculato-ramosis.

β? *glabrior.*

Hab. in Brasilia: in summo monte Itambé, β in campis editis ad Lages provinciæ Bahiensis *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Affinis *E. complicatæ*, sed superficie hirsutior, foliis angustioribus, et præsertim floribus in paniculam pedalem et ultra nec in racemum simplicem dispositis distincta. Ab *E. macrostachya* differt foliis brevibus obtusis.

13. *E. MACROSTACHYA* (Mart. MSS.), fruticosa, ramis pubescentibus villosisve, foliis petiolatis ovato-lanceolatis acutis denticulatis basi rotundatis subcordatisve rugosis utrinque villosis, panicula ampla ramosa.

β *villosa.*

Hab. in Brasilia: in campis editioribus ad San João del Rey Mariana et alibi provinciæ Minas Geraes *Martius!* in sylvis prope Ponte das Paulistas ejusdem provinciæ, in arenosis in Serra Negra ad limites provinciæ Rio Janeiro et ad ripas fluminis Itacurambi Pequeño inter Minas Novas *A. de St. Hilaire!* in Brasilia meridionali *Sello!* β in campis elevatis prope Carandai provinciæ Minas Geraes, in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Frutex elatus, villositate valde variabilis. Folia 1½-3-pollicaria et longiora, subtus sæpe pallidiora vel subcanescentia. Panicula sæpe sesquipedalis et ultra. Flores secundi. Corolla cœruleo-purpurea, extus pubescens, lobo infimo brevissime bicornuto. In var. β caules rufo-tomentosi et pilis patentibus dense hirsuti. Folia subtus rufo-villosa, et rugosiora quam in var. α.

XVI. LAVANDULA.

Lavandula. Linn.

Stæchas. Tourn.

Fabrícia. Adans.

Chætostachys. Benth. in Wall. Pl. As. Rar. 2. 19.

Calyx ovato-tubulosus, subæqualis, 1-3- vel rarius 15-nervius, breviter 5-dentatus, dentibus 4 inferioribus subæqualibus vel 2 infimis angustioribus, supremo nunc lateralibus parum latiore nunc apice in appendicem dilatatam producto. Corolla tubo exserto, fauce subdilata, limbo obliquo bilabiato, labio superiore bilobo, inferiore trilobo, lobis omnibus subæqualibus patentibus. Stamina 4, didynama (inferioribus longioribus), tubo corollæ inclusa, declinata. Filamenta glabra, libera, edentula. Antheræ ovato-reniformes, confluentes, uniloculares. Stylus apice breviter bifidus, lobis complanatis subconnatis margine stigmatiferis. Discus concavus, ad marginem squamis carnosius 4 acheniis antepositis donatus. Achenia glabra, lævia, disci squamis postice adnata.—Herbæ perennes, suffrutices vel fruticuli, caule basi folioso sub spica sæpe nudo. Folia floralia bractæformia, utrinque 1-5-flora, opposita vel rarius alterna. Flores in spicis terminalibus simplicibus vel basi ramosis approximati. Bractæ parvæ, setacæ, vel nullæ.

A Mediterranean genus, extending along the northern side from Portugal to Dalmatia and Greece, and on the southern from the Canary islands over Barbary to Egypt, and from thence through Persia (in the instance of one species) as far as the Indian peninsula.

The Lavanders form a very natural group, very distinct from all other genera of *Labiata*. The declinate stamina and form of the anthers bring them near the *Ocymoidæ*, which they also resemble in the tendency of the upper tooth of the calyx to form a membranous appendage at the extremity; but in other respects the resemblance is slight. The leaves, and in some respects the flowers, also shew an affinity to *Nepeta*; and the short stamina would place them in a mere *artificial* classification near *Sideritis*. I cannot, however, trace the connexion with *Thymus*, mentioned by M. de Gingins de Lassaraz in his excellent Monography,* of which it will be seen I have made much use.

CONSPECTUS SPECIERUM.

SECT. I. STÆCHAS. *Verticillastri multiflori. Spicæ apice comosæ.*

Folia integerrima.

Planta incana. Coma colorata.

Spicæ breviter pedunculatæ. Calyx tubo corollæ brevior . . .

1. L. STÆCHAS.

Spicæ longe pedunculatæ. Calyx tubum corollæ æquans . . .

2. L. PEDUNCULATA.

Planta viridis hirsuta. Coma viridis . . .

3. L. VIRIDIS.

Folia dentata . . .

4. L. DENTATA.

SECT. II. SPICA. *Verticillastri multiflori. Folia floralia suprema calyce breviora.*

Folia floralia rhombeo-ovata . . .

5. L. VERA.

Folia floralia lanceolato-lineararia vel subulata . . .

6. L. SPICA.

* *Histoire Naturelle des Lavandes*, par M. le Baron de Gingins de Lassaraz. Genève, 1826.

SECT. III. PTEROSTÆCHAS. *Flores solitarii oppositi.*

- Folia integra dentata 7. L. ROTUNDIFOLIA.
 Folia dissecta.
 Folia floralia ovato-lanceolata, calycem æquantia.
 Planta incana 8. L. PINNATA.
 Planta viridis 9. L. ABROTANOIDES.
 Folia floralia cordato-dilatata, calycem æquantia 10. L. MULTIFIDA.
 Folia floralia ovato-lanceolata brevissima . . . 11. L. CORONOPIFOLIA.

SECT. IV. CHÆTOSTACHYS. *Flores solitarii alterni.*

- Species unica 12. L. BURMANNI.

SECTIO I. STÆCHAS.

Folia floralia 3-5-flora in spicam densam imbricata, superiora sterilia comosa. Calycis dens supremus dilatato-appendiculatus. Arbusculæ foliis integerrimis vel pinnato-dentatis.

1. L. STÆCHAS (Linn.! Spec. 800), foliis oblongo-linearibus integerrimis margine revolutis utrinque cano-tomentosis, spicis densis comosis, verticillastris 6-10-floris, calycibus ovatis incanis, tubo corollæ brevior.

Stæchas purpurea. *Tourn. Inst.* 201. t. 95.

Stæchas officinarum. *Mill. Dict.* n. 1.

L. Stæchas. *Sibth. et Sm. Fl. Gr.* 6. t. 549.

β *macrostachya*, (Ging. Hist. Lav. 130.) spicis crassioribus 8-gonis, coma speciosa, foliis latioribus.

L. pseudo-stæchas. *Reichb. ex Holl. in Bot. Zeit.* 1829. 2. 691.

Hab. in Europæ, Mediterraneæ et Africæ borealis collibus siccis petrosis arenosisque: in Lusitania frequens *Brotero*, in Hispania! ins. Balearicis *Cambessedes*, Gallia Narbonensi! Italia *Savi!* *Tenore*, Sicilia *Gussone!* in Græcia boreali tum in Archipelagi insulis vulgaris *Sibthorp!* prope Constantinopolem *Olivier et Bruguier!* *Beaupré!* *Castagne!* in agro Tunetano et Algeriensi *Desfontaines*, in ins. Canariensibus! β “in Corsica *Thomas*, in sabuletis Alcamanna Siciliæ, in campo Palinures-Neapolis *Gussone*, in dumetis Teneriffæ *L. de Buch*” (*De Ging.*) (*v. v. et h. s. sp.*)

Fruticulus 2-3-pedalis, ramosissimus, erectus, ramis subteretibus, junioribus cano-tomentosis sæpius abbreviatis dense foliosis. Folia sessilia subsemipollicaria, juniora breviora in axillis subfasciculata, omnia subtus venosa. Spica breviter pedunculata, terminalis, 1-1½-pollicaris. Folia floralia dense imbricata, rhombeo-cordata, acuminata, opposita vel in var. β quaternatim verticillata, 3-5-flora, tomentoso-pubescentia, superiora sterilia, comosa, dilatata, oblongo-cuneiformia, colorata. Calyx ovato-tubulosus, tomentosus, dentibus brevibus obtusiusculis, 4 inferioribus subæqualibus, supremo in appendice obcordato dilatato. Corolla atro-purpurea, tubo breviter exserto. Achenia ovato-triangularia.

2. L. PEDUNCULATA (Cav. Prælect. 70.), foliis lanceolatis integerrimis margine revolutis utrinque cano-tomentosis, spicis densis comosis, verticillastris 6-10-floris, calycibus elongatis pubescentibus tubum corollæ æquantibus.

L. Stæchas β. *Linn. Spec.* 800.

Stæchas pedunculata. *Mill. Dict.* n. 2.

Hab. in Hispania *Lagasca*: in Lusitania ad ripas Tagi in ericetis

sed rarior, frequentior inter Lamego et Viseu *Link.* in ins. Madera *Masson!* (v. s. sp. in herb. *Banks et DC.*)

Differt a *L. Stæchade* imprimis spica crassiore brevior et laxiore atque longe pedunculata, calyce cylindræo nec ovato tubum corollæ vix æquante nec brevior, et habitu. Odor debilior quam *L. Stæchadis* (*De Ging.*). An revera species distincta?

3. *L. VIRIDIS* (*Ait. Hort. Kew.* 2. 288), foliis oblongo-linearibus integerrimis margine revolutis utrinque viridibus villosis, spicis laxiusculis subcomosis, verticillastris 6-10-floris, calycibus tubulosis subvillosis tubum corollæ æquantibus.

Stæchas viridis. *Rai. Hist.* 1. 514.

Lavandula viridis. *L'hér. Sert. Angl.* 19. t. 21. *Hoffm. et Link Fl. Port.* 1. 91. t. 4.

Lavandula Massoni. *Cels. ex Ging. Hist. Lav.* 137.

Hab. in Lusitania: ad Serra de Monchique et inter Castromaria et Merlota *Link.* et in ins. Madera *Masson!* (v. s. sp. in herb. *Banks et Vahl.*)

A *L. Stæchade* differt præcipue foliis villosis uti spica et coma viridibus, spica laxiore, et calyce longius appendiculato.

4. *L. DENTATA* (*Linn.!* *Spec.* 800), foliis oblongo-linearibus lanceolatisve obtuse pinnato-dentatis pubescentibus subtus canis margine revolutis, spicis laxis subcomosis, calycibus oblongis pubescentibus tubum corollæ subæquantibus.

Stæchas dentata. *Mill. Dict. n.* 3.

L. dentata. *Bot. Mag.* 12. t. 400.

Hab. in Europæ et Africæ regionis Mediterraneæ occidentalis aridis: in Hispania a regno Valentino ad Andalusiam et in ins. Balearicis *Cambessedes!* in regno Napolitano ad Gargano *Baselice* apud *Tenore*, in Sicilia! in ins. Zacyntho Archipelagi Græci, at vix spontanea *Sibthorp*, in regno Algeriensi *Desfontaines*, in ins. Madera *Herb. Banks!* (h. s. sp.)

Suffrutex sesquipedalis, basi ramosus, ramis adscendentibus tetragonis tomentoso-pubescentibus basi foliosis extremitate pedunculo elongato nudo terminatis. Folia 1-1½-pollicaria, margine regulariter crenata vel obtuse pinnatifida, basi angustata, supra viridia glabriuscula, subtus cano-pubescentia. Spica 1-2-pollicaris, basi interrupta. Verticillastri 6-10-flori. Folia floralia rhomboidea, acuminata, basi cuneata, membranacea, villosa-tomentosa; suprema sterilia, colorata, subcomosa. Calyces breviter pedicellati, oblongo-cylindræi, fructiferi parum elongati, basi subinflati, dentibus 4 inferioribus æqualibus abbreviatis acutis, supremo in appendicem latissimum membranaceum obcordatum dilatato. Corolla *L. Stæchadis*. Achenia ovoideo-triquetra, pallida, lævia.

L. HETEROPHYLLA (*Poir. Dict. Suppl.* 11. 308) varietates duas hortenses verosimiliter hybridas includit, quarum altera forte ex *L. dentata* et *L. vera*, altera ex *L. dentata* et *L. spica* orta est. (*cfr. Ging. Hist. Lav.* 142.)

SECTIO II. SPICA.

Folia floralia 3-5-flora in spicam laxam approximata, superiora calyce breviora fertilia. Calycis dens supremus dilatato-appendiculatus. Arbusculæ, ramis superne nudis, foliis integerrimis.

5. *L. VERA* (*DC.!* *Fl. Fr. Suppl.* 5. 398), foliis oblongo-linearibus lanceolatisve integerrimis junioribus canis margine revolutis, spicis interruptis, verticillastris 6-10-floris, foliis floralibus rhombeo-ovatis

acuminatis membranaceis omnibus fertilibus supremis calyce brevioribus, bracteis subnullis.

L. angustifolia. Mæench. *Meth.* 389. et *Auct. vet.*

L. Spica α. Linn. *Spec.* 800.

L. Spica. Lois. *Fl. Gall.* 2. 346.

L. vulgaris α. Lam. *Fl. Fr.* 2. 403.

L. officinalis. Chaix in Vill. *Fl. Dauph.* 2. 355. 363.

β Pyrenaica, foliis floralibus inferioribus longioribus, calycis appendice evidentiore.

L. Pyrenaica. DC.! *Fl. Fr.* 5. 398.

Hab. in Europæ et Africæ regionis Mediterraneæ collibus sterilibus et declivibus: in Gallia meridionali ab Occitania inferiore! et Gallo-provincia! usque ad Lugdunum! “in Etruria, plagis mari proximis *Savi*, Liguria occidentali *Badero*, Corsica *Bourdet*, Helvetia *Haller*” (*Ging.*), in Calabria *Tenore*, in Atlante *Desfontaines*, *β* in Pyrenæis orientalibus! et in vallibus Cataloniæ! et Aragoniæ! (*v. v. et h. s. sp.*)

Fruticulus 1-2-pedalis, basi ramosissimus, ramis erectis tetragonis subtomentosis basi foliosis superne subnudis. Folia juniora sæpe in axillis fasciculata, brevia, margine revoluta, et utrinque albo-tomentosa, vetustiora planiora, viridiora, 1-1½-pollicaria vel etiam longiora. Verticillastri infimi remoti, supremi in spicam interruptam nunquam comosam approximati. Folia floralia constanter dilatato-membranacea, venosa, acuminata, glabriuscula et fuscescentia, sed forma variabilia, infima præsertim in var. *β* longius acuminata et calycem subsuperantia, superiora constanter calyce breviora. Calyx brevissime pedicellatus, tomentosus, cœrulescens, dentibus brevissimis, supremo in appendice brevi producto. Corolla calyce duplo longior, extus pubescens. Achenia parva, oblonga, brunnea, lævia.—Species in hortis sæpissime culta.

6. *L. SPICA* (DC. *Fl. Fr.* 5. 397), foliis oblongo-lanceolatis subspathulatis integerrimis basi longe angustatis margine subrevolutis utrinque canis, spicis subinterruptis, verticillastris 6-10-floris, foliis floralibus lanceolatis linearibusve omnibus fertilibus supremis calyce brevioribus, bracteis lineari-subulatis calyce brevioribus.

L. Spica β. Linn. *Spec.* 800.

L. vulgaris β. Lam. *Fl. Fr.* 2. 403.

L. latifolia. Vill. *Fl. Dauph.* 2. 363.*

Hab. in Europæ et Africæ regionis Mediterraneæ aridis: in Hispania! ins. Balearicis *Cambessedes*, Gallia meridionali! Italiæ regno Neapolitano *Tenore*, Sicilia *Gussone*, Græciæ agro Laconico *Sibthorp*, in agro Tunetano et Algeriensi *Desfontaines*. (*v. v. et h. s. sp.*)

Affinis *L. veræ*. Differt habitu humiliore, colore albidior, foliis ad basin ramulorum magis congestis, spica densiore et brevior, foliorum floralium forma, et bractearum præsentia.

SECTIO III. PTEROSTÆCHAS.

Pterostæchas. *Ging. Hist. Lav.* 158.

Folia floralia uniflora opposita, in spica laxa disposita, superiora non comosa. Calyx 13-nervis subbilabiatus, labio superiore 3-dentato,

* *Desfontaines* (*Cat. Hort. Par. ed.* 3. 98.) has a *L. latifolia*, which he mentions as different from the above, and in the notes (p. 395) he characterises it as “foliis ovatis integerrimis;” but from so vague and imperfect a description it is impossible to determine whether it be a really distinct species, or, what is more probable, a mere garden variety of some of the above.

dente medio latiore non appendiculato, inferiore bidentato. *Herbæ perennes vel basi sublignosæ. Folia dentata vel inciso-multifida.*

7. *L. ROTUNDIFOLIA*, foliis petiolatis late ovatis inciso-dentatis basi rotundatis utrinque glabris, spicis elongatis gracilibus, floribus solitariis oppositis.

Hab. in ins. Sancti Nicolai Capitis Viridis Africæ occidentalis *Forbes!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Species foliis latis margine tantum inciso-dentatis nec divisis distinctissima. Habitus et spica *L. abrotanoidis*. Rami tenuiter pubescentes vel glabri, virides. Folia 1-1½ poll. longa, plerumque plus pollice lata, dentibus obtusis crassiusculis. Dentes calycini lanceolati, acuti.

8. *L. PINNATA* (Linn. fil. Diss. Lav. 55), brevissime incanotomentosa, foliis simpliciter vel bis pinnatipartitis pinnatifidisve lobis integerrimis obtusissimis floralibus ovatis acutiusculis, spicis elongatis gracilibus subternis incanis, floribus solitariis oppositis.

L. pinnata. Jacq. Ic. Rar. 1. 11. t. 106. Bot. Mag. 12. t. 401.

β pubescens.

*L. formosa. Dietr. Lexic. Nachtr. 4. et Link. Enum. Hort. Berol. 1. 103. ex Ging. Hist. Lav. 159.**

Hab. in ins. Canariensibus: in rupibus maritimis ins. Madera *Chr. Smith*, et in Teneriffa *Broussonet* (*Ging.*). (*h. s. c. et v. s. sp. in herb. Banks.*)

Herba perennis vel basi suffruticosa, tota tomento brevissimo subsericeo incana. Caules basi ramosi, foliosi, apice in pedunculum 1-1½-pedalem tetragonum nudum abeuntes. Folia nunc simpliciter pinnatipartita, sæpius vero segmenta profunde 2-3-lobata vel pinnatifida, lobis omnibus integerrimis margine subrevolutis utrinque canis, cæterum glabris. Spicæ plerumque tres, tetragonæ, 2-3-pollicares, laxæ. Folia floralia calyce sublongiora. Calyces subsessiles, ovato-oblongi, dentibus brevissimis superioribus lato-ovatis, 2 inferioribus angustis lanceolatis. Corolla purpurea, tubo calyce subduplo longiore.

9. *L. ABROTANOIDES* (Lam. Dict. 3. 429), viridis, pilosiuscula, foliis bipinnatisectis lobis integris obtusiusculis floralibus ovato-lanceolatis acutissimis, spicis elongatis gracilibus ramosis, floribus solitariis oppositis.

L. canariensis. Mill. Dict. n. 4.

L. elegans. Desf.! Hort. Par. 71. Mirb. Ann. Mus. 15. t. 5. f. 5.

Hab. in ins. Canariensibus! (*h. s. sp. e Mus. Soc. Hort. Lond. et comm. a cl. Chamisso.*)

Ab affini *L. pinnata* differt superficie viridi nec cana, caule basi pubescente, foliis magis dissectis, segmentis angustioribus, spicis plerumque 5 longioribus laxioribusque, et foliis floralibus acutioribus.

Exemplaria ex hortibus Monspeliensi et Mexicano possideo, cui foliorum pinnulæ plerumque simplices et acutiusculæ, et (in exemplari Monspeliensi) caulis basi villosior; sed potius varietates hortenses quam speciem propriam constituere videntur.

10. *L. MULTIFIDA* (Linn.! Spec. 800), viridis, pilosa, caulibus foliosis, foliis bipinnatifidis lobis subcuneatis acutis floralibus cordato-dilatatis acuminatis villosis calycem subæquantibus, spica densiuscula, calycibus tomentosis.

Hab. in Europæ et Africæ Mediterraneæ regionibus austro-occidentalibus: in peninsulæ Hispanicæ regione Boetica colle Malacæ et circa Murciam *Clusius*, in Lusitania Transtagana *Brotero*, in Calabria

* "*L. formosa* Diet. quam in hortis Germanicis observavi est varietas hortensis minus incana, spica laxiore." *Ging. l. c.*

Tenore, in collibus incultis regni Tunetani et Algeriensis *Desfontaines*.
(*h. s. c.*)

Species variabilis, et affinis *L. abrotanoidi*, a qua constanter differt spicis brevioribus plerumque simplicibus, foliis floralibus latis extus villosis, et calycibus valde tomentosis. Caulis basi plerumque villosus, elongatus, foliosus. Pedunculi dimidio breviores quam in *L. pinnata* et *abrotanoide*.

11. *L. CORONOPIFOLIA* (Poir. ! Dict. 11. 308), hispidula, caulibus subnudis strictis, foliis pinnatisectis segmentis linearibus integris floralibus brevissimis ovatis acutissimis, spicis gracillimis, floribus solitariis oppositis remotis.

L. multifida. *Burm. ! Fl. Ind. t. 38. f. 1. non ejusd. ibid. 126. nec Linn.*

L. stricta. *Del. ! Fl. Ægypt. 1. 94. t. 32. f. 1.**

Hab. in Africa orientali et Asia occidentali : in Ægypto prope Val de l'Egarement in desertis Suez *Delile !* in Persia *Burm. !* (*h. s. sp. comm. a cl. Delile.*)

Caulis floriferi plurimi, ramosi, graciles, foliis plerumque destituti. Folia in ramis sterilibus 1-2-pollicaria, subcarnosa, hispidula, segmentis anguste linearibus. Spica 1-2-pollicaris, simplex vel subramosa, florum paribus demum valde remotis. Calyx tubulosus, subcinereus aut rubeolus, dentibus acutis brevibus subæqualibus. Corolla cœrulescens, tubo calyce duplo longiore, limbi lobis fere æqualibus patentibus. Achenia ovata, fusca, lævia.

SECTIO IV. CHÆTOSTACHYS.

Chætostachys. *Benth. in Wall. Pl. As. Rar. 2. 19.*

Folia floralia uniflora alterna, in spica laxiuscula ramosa disposita, superiora non comosa. Calyx 15-nervis, subæqualiter 5-dentatus. Herba perennis. Folia inciso-multifida.

12. *L. BURMANNI*, tenuiter pubescens, caulibus foliosis, foliis bipinnatisectis segmentis linearibus integerrimis floralibus membranceis basi dilatatis longe setaceo-acuminatis, spicis densiusculis, floribus solitariis alternis approximatis.

L. multifida. *Burm. ! Fl. Ind. 126. non ejusd. ic. ibid. t. 38. f. 1. nec Linn.*

Bysteropogon bipinnatus. *Roth. ! Nov. Pl. Spec. 225.*

Chætostachys multifida. *Benth. in Wall. Pl. As. Rar. 2. 19.*

Hab. in India orientali (verosimiliter in peninsula) *Burm. ! Klein !*
(*h. s. sp. e Mus. Angl. Ind.*)

Caulis videtur herbaceus, erectus, tetragonus, ad nodos contractus, tenuiter tomentoso-pubescens. Folia sessilia, laciniis obtusis margine revolutis subtus tomentoso-pubescentibus. Spica terminalis, sæpius ramosa. Folia floralia calycem superantia. Calyx sessilis, striatus, canescens, dentibus acutis, fructifer turgidus. Corolla tenuis, calycem excedens. Limbus videtur subæqualiter 5-fidus, sed in speciminibus suppetentibus vix rite examinare potui. Discus ovarii infra glandulifer. Achenia aqua immersa, extus ut in *Hyptidibus* et *Salviis* gelatinosa.

I had considered this plant, so remarkable by its alternate inflorescence, as a distinct genus ; but on farther examination, it has appeared so closely allied to the section *Pterostæchas*, that I have thought it better to unite it to *Lavandula* as a separate section only.

Species e genere excludenda.

L. CARNOSA *Linn. Fil. = Anisochilus carnosus.*

* This and the preceding species, with the exception of the *L. rotundifolia*, are all figured in De Gingis's Monography.

TRIBUS II. MENTHOIDEÆ.

COROLLA subcampanulata vel infundibuliformis, tubo calyce brevior vel vix longior, limbo 4-5-fido, lobis subæqualibus. Stamina distantia, recta vel divergentia, nec per paria approximata.

XVII. POGOSTEMON.

Menthæ sp. *Roxb.*

Pogostemon. *Desf. Mem. Mus. Par. 2. 154.*

Calyx ovato-tubulosus, æqualis, 5-dentatus, intus fauce nuda. Corolla tubo incluso, limbo quadrifido subbilabiato, labio superiore trifido, inferiore integro, lobis omnibus integerrimis subæqualibus patentibus. Stamina 4, exserta, recta vel subdeclinata. Filamenta medio barbata vel nuda. Antheræ terminales, uniloculares, rima transversali dehiscentes. Stylus apice subæqualiter bifidus, lobis subulatis, stigmatibus minutis terminalibus.—Herbæ. Folia opposita, petiolata, integra, dentata vel subincisa. Verticillastri multiflori, æquales vel secundi, nunc bracteis suffulti glomerato-spicati, spiculis racemoso-paniculatis, nunc in racemis spicæformibus simplicibus laxè approximati.

All the species are East Indian.

This genus differs from *Dysophylla* in the greater irregularity of the corolla, and in some measure in habit, especially the paniculate species. The two genera form a little group, differing from *Ocymoidæ* in the nearly regular quadrifid corolla, and stamens scarcely declinate; and from *Menthoideæ*, to which they are more nearly allied, by the terminal unilocular anthers, and the slight declination of the stamens.

CONSPECTUS SPECIERUM.

§ 1. PANICULATÆ. *Racemi paniculato-ramosi.*

Folia valde disparia

1. *P. PANICULATUM.*

Folia in quoque pari magnitudine subæqualia.

Bracteæ membranaceæ, exteriores calycibus longiores.

Erectum cano-pubescens

2. *P. PLECTRANTHOIDES.*

Erectum dense villosum

3. *P. VILLOSUM.*

Adscendens tenuiter pubescens. (Verticillastri æquales)

4. *P. PARVIFLORUM.*

Bracteæ ovatæ, calyce breviores.

Erectum glaberrimum

5. *P. GLABRUM.*

Erectum tuberculatum

6. *P. TUBERCULOSUM.*

Adscendens pubescens. (Verticillastri juniores secundi)

7. *P. HEYNEANUM.*

§ 2. RACEMOSÆ. *Racemi simplices subspicati.*

Filamenta barbata.

Verticillastri secundi

8. *P. VESTITUM.*

Verticillastri æquales.

Villosum. Folia rotundata basi cordata

9. *P. ROTUNDATUM.*

Molliter villosum.	Folia ovata basi	
rotundata	.	10. P. MOLLE.
Adpresse hirsutum.	Folia ovata acu-	
minata	.	11. P. HIRSUTUM.
Glabrum	.	12. P. RUPESTRE.
Filamenta nuda.		
Folia basi cordata	.	13. P. SPECIOSUM.
Folia basi rotundata	.	14. P. WIGHTII.
Folia basi angustata	.	15. P. MENTHOIDES.

§ 1. PANICULATÆ. *Racemi paniculato-ramosi.*

1. P. PANICULATUM (Benth. in Wall. Pl. As. Rar. 1. 30), caule erecto pilis erectis pubescente, foliis inæqualibus ovatis inciso-serratis basi angustatis, verticillastris globosis secundis remotis racemosis, racemis terminalibus, bracteis lato-ovatis membranaceis calyces superantibus, calycis membranacei pubescentis dentibus lanceolatis, filamentis barbatis.

Manam podam. *Rheed. Hort. Malab.* 10. 129. t. 65.

Elsholtzia paniculata. *Willd. Sp.* 3. 59.

Hyssopus cristatus. *Lam. ! Dict.* 3. 187.

Hab. in India Orientali: in humidis Malabariæ *Rheede*, in Tavoy *Wallich ! (h. s. sp. e Mus. Angl. Ind.)*

Caulis herbaceus, 2-3-pedalis, ramis paniculatis pilis adpressis erectis strigosis villosus. Folia tenuia, flaccida, supra et subtus pilis adpressis caulinis similibus obsessa, margine profunde inciso-dentata, lobis ovatis duplicato-serratis, in quoque pari unum petiolatum 3 poll. et ultra longum, alterum subsessile duplo quadruplo brevius; floralia conformia et pariter inæqualia, sed multo minora, suprema bractæformia. Racemi laxi, axillares, alterni (in axilla folii majoris orti), infimi folio vix longiores. Verticillastri omnes distincti, infimi semipollicem remoti, supremi magis approximati. Bractæ calycesque membranacæ, tenuiter pubescentes, ciliatæ. Corolla tenuissima, at omnino hujus generis mihi videtur. Filamenta exserta, medio barbata.

2. P. PLECTRANTHOIDES (Desf. ! *Ann. Mus. Par.* 2. 154. t. 6), cano-pubescent, caule erecto, foliis ovatis basi cuneatis vel rotundatis duplicato-serratis, floribus subsecundis glomerato-spicatis, spicis ovato-cylindricis pedunculatis paniculatis, bracteis lato-ovatis striatis glanduloso-punctatis calyces superantibus, calycis membranacei hirsuti glanduloso-punctati dentibus lato-lanceolatis acutis, filamentis barbatis.

Origanum benghalense. *Burm. ! Fl. Ind.* 128. t. 38. f. 3. *pessima*.

Mentha secunda. *Roxb. ! Hort. Beng.* 44.

Pogostemon plectranthoides. *Bot. Mag.* 59. t. 3238.

Hab. in Indiæ Orientalis humidis: in Hindustania Napalia et Kamaon *Wallich !* versus Deyra Dhoon *Roxb. !* ad portum Kheeree *Royle !* in Java ad pedem montis Gede *Blume. (h. s. sp. e Mus. Angl. Ind.)*

Caules herbacei, 2-3-pedales. Rami obtuse tetragoni, juniores molliter cano-villosi. Folia caulina 2-3-pollicaria, superiora minora, floralia inferiora conformia, suprema bractæformia. Panicula densa, multiflora. Verticillastri ex floribus 30-50 et ultra secundis dense glomeratis compositi, et spiculas densas 1-1½-pollicares formantes. Bractæ apice coloratæ, molliter villosæ, imbricatæ. Calyces obconico-tubulosi, apice colorati. Genitalia corolla duplo longiora. Achenia ovato-triquetra, nigra, lævissima, lucida.

3. P. VILLOSUM, villosum, caule suberecto, foliis ovatis basi rotundatis ad petiolum angustatis crenatis, floribus subsecundis glomerato-spicatis spiculis cylindricis subsessilibus paniculatis, bracteis ovatis

striatis pubescentibus calyces æquantibus, calycis villosi dentibus lanceolatis acutis, filamentis barbatis.

β macrophyllus.

Hab. in India Orientali: ad Silhet Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis erectus vel adscendens, pilis erecto-patentibus villosus. Folia crassa, dense et molliter villosa, foliis *P. plectranthoidis* dimidio vel in var. *β* duplo majora, minus profunde et obtuse dentata. Panicula densior, angustior, racemiformis. Bracteæ paullo breviores, uti calyces villosiores. Corolla minor.

4. *P. PARVIFLORUM* (Benth. in Wall. Pl. As. Rar. 1. 31), caule adscendente tenuiter pubescente, foliis glabriusculis ovato-oblongis basi angustatis duplicato-crenatis, floribus subsecundis glomerato-spicatis, spiculis subsessilibus racemosis, racemis axillaribus terminalibusque, bracteis ovatis striatis pubescentibus flores superantibus, calycis villosi membranacei dentibus anguste lanceolatis, filamentis barbatis.

Hab. in Indiæ Orientalis provincia Silhet Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis basi procumbens, adscendens, demum glabratus. Folia flaccida, 3-4-pollicaria, breviter petiolata. Panicula racemiformis, gracilior quam in *P. plectranthoide*. Verticillastri, calyces, et flores duplo minores. Folia floralia bractæformia, flores superantia.

5. *P. GLABRUM* (Benth. in Wall. Pl. As. Rar. 1. 31), glaberrimum, caule erecto, foliis ovatis basi angustatis crenatis, verticillastris subæqualibus globosis spicatis, spicis paniculatis, bracteis ovatis calyce triplo brevioribus, calycis glabri dentibus ovato-lanceolatis, filamentis barbatis.

Perilla polystachya. Don *Prod. Fl. Nep.* 115. *sec. specim. Hamiltoniana in herb. Linn. servata.*

Hab. in India Orientali: in Napalia Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Habitus fere *P. plectranthoidis*, sed ex omni parte glabrum, folia majora, longe petiolata, minus dentata, basi longe angustata. Verticillastri subdistincti, in spiculis 2-6-pollicaribus approximati. Calycis forma et corolla *P. parvifloræ*, sed flores multo numerosiores et bracteæ triplo breviores.

6. *P. TUBERCULOSUM* (Benth. in Wall. Pl. As. Rar. 1. 31), pilis brevibus stellatis ex tuberculo ortis pubescens, caule erecto, foliis ovatis basi angustatis duplicato-serratis utrinque tuberculoso-rugosis, verticillastris æqualibus globosis remotis racemosis, racemis paniculatis, bracteis minutis, calycis tuberculosi dentibus subulatis, filamentis barbatis.

Hab. in India Orientali: in Napalia Wallich! (*v. s. sp. in herb. Hook.*)

Affine *P. glabro*, a quo differt præsertim tuberculis. Folia caulina petiolata, floralia sessilia, linearia, acuta, verticillastro subbreviora. Flores subsessiles, fere *P. glabri*.

7. *P. HEYNEANUM* (Benth. in Wall. Pl. As. Rar. 1. 31), caule adscendente pubescente, foliis glabriusculis ovatis basi angustatis irregulariter crenatis, verticillastris subsecundis interrupte spicatis, spicis paniculatis, bracteis ovatis subnerviis calyces subæquantibus, calycis pubescentis dentibus ovatis, filamentis barbatis.

Cottam. *Rheede Hort. Malab.* 10. 153. *t.* 77.

Origanum indicum. Roth. ? *Nov. Sp. Pl.* 265.

β foliis subincisis, dentibus calycinis angustioribus.

Hab. in India Orientali : in peninsula *Heyne* ! in Java *Leschenault* ! in uliginosis Ceylonæ ad Caltura *Macrae* ! β in Ceylona interiore *Leschenault* ! (*h. s. sp. e Mus. Angl. Ind.*)

A præcedentibus differt verticillastris fere omnibus distinctis. Folia forma *P. glabri*, sed utrinque sæpius tenuissime pubescentia. Panicula laxa, patens. Verticillastri juniores secundi, demum subæquales, sæpe 30-50-flori. Corolla *P. parviflori*.

§ 2. RACEMOSÆ. *Racemi simplices subspicati.*

8. *P. VESTITUM* (Benth. in Wall. Pl. As. Rar. 1. 31), tomentosolanatum, caule adscendente, foliis ovatis crenatis basi subcordatis rugosis molliter tomentosis, floralibus superioribus calyce brevioribus, racemis simplicibus, verticillastris secundis approximatis, bracteis lineari-subulatis, calycis villosi dentibus lanceolatis, filamentis barbatis.

Hab. in Indiæ Orientalis peninsula *Heyne* ! (*h. s. sp. e Mus. Angl. Ind.*)

Caules e basi lignoso adscendentes, uti folia tomento denso rufo-albido lanati. Racemus densus, 2-3-pollicaris. Folia floralia, bracteæ, et calyx *P. rotundati*, sed villosiora.

9. *P. ROTUNDATUM* (Benth. in Wall. Pl. As. Rar. 1. 31), villosum, caule adscendente, foliis rotundatis duplicato-crenatis basi truncatis vel cordatis floralibus superioribus calyce brevioribus, racemis simplicibus, verticillastris æqualibus subremotis, bracteis lineari-subulatis, calycis villosi dentibus lanceolatis, filamentis barbatis.

Hab. in Indiæ Orientalis peninsula *Heyne* ! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis basi procumbens, ramis adscendentibus vix pedalibus pubescenti-villosus. Folia pauca, 2-pollicaria, molliter villosa, rugosa. Racemus 2-4-pollicaris, ex verticillastris 5-10 distinctis laxè multifloris compositus. Foliorum floralium par infimum caulinis conforme, superiora lanceolata bractæformia. Bracteæ exteriores calyce paullo breviores, interiores minutæ. Calyx 3-4-linearis. Corolla parva.

10. *P. MOLLE*, molliter tomentoso-villosum, caule adscendente, foliis lato-ovatis crenatis basi rotundato-cuneatis floralibus calyce sublongioribus, racemis simplicibus, verticillastris æqualibus inferioribus remotis supremis approximatis, bracteis lineari-subulatis, calycis villosi dentibus lanceolato-subulatis, filamentis barbatis.

Hab. in India Orientali : in peninsulæ montibus Madurensibus *Wight* ! (*h. s. sp. comm. a cl. Wight.*)

A *P. rotundato* differt caule ramosiore, foliis numerosis duplo minoribus basi cuneatis nec cordatis, racemis longioribus, verticillastris duplo minoribus densioribus. Folia floralia suprema lanceolato-linearibus, ante anthesin verticillastro subduplo longiora.

11. *P. HIRSUTUM*, pilis adpressis hirsutum, caule adscendente, foliis petiolatis ovatis acuminatis serratis basi rotundatis floralibus superioribus calyce brevioribus, racemis simplicibus, verticillastris æqualibus distinctis, bracteis lineari-subulatis, calycis hispidi dentibus lanceolatis acutis, filamentis breviter exsertis barbatis.

Hab. in Ceylona : *Macrae* ! (*v. s. sp. in herb. Soc. Hort. Lond.*)

Habitus varietatum graciliorum *Menthæ aquaticæ*. Caules, folia, rhachis, bracteæ, et calyces pilis adpressis vel ad axillas subpatentibus hirsuti. Folia vetustiora et caulis basis subglabrati. Racemus 2-3-pollicaris. Verticillastri 10-15-flori, laxiusculi. Corollæ parvæ. Stamina vix dentibus corollæ longiora. Filamenta versus apicem pilis purpurascensibus dense barbata.

12. *P. RUPESTRE*, glabrum, caule repente, ramis adscendentibus, foliis petiolatis ovato-lanceolatis grosse dentatis basi angustatis floralibus bracteisque minutis, racemis simplicibus, verticillastris remotis paucifloris, calycis glabri dentibus ovatis abbreviatis, filamentis barbatis.

Hab. in Ceylonæ rupestribus editioribus circa Nuera Ellia *Macrae*! (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caules elongati, tenues, ad nodos sæpe radicanter, uti tota planta glaberrimi. Folia basi longe in petiolum angustata, limbo 1-1½-pollicari. Racemi 2-3-pollicares. Verticillastri laxè pauciflori. Calyces parvi. Corollæ minutæ. Filamenta extra corollam fere calycis longitudine, medio dense barbata.

13. *P. SPECIOSUM* (Benth. in Wall. Pl. As. Rar. 1. 31), piloso-hispidum, caule erecto, foliis lato-ovatis basi cordatis duplicato-crenatis, racemis simplicibus, verticillastris teretibus laxis approximatis, bracteis minutis, calycis glabriusculi tubulosi dentibus subulatis, filamentis nudis.

Hab. in India Orientali: in peninsulæ montibus Madurensibus *Wight*! (*h. s. sp. comm. a cl. Wight.*)

A *P. Wightii* differt foliis majoribus latioribus basi cordatis et præsertim spica densa crassa et corollis genitalibusque longius exsertis siccitate nigris lucidis. Antheræ flavescentes.

14. *P. WIGHTII*, piloso-hispidum, caule erecto? foliis petiolatis ovatis acutis duplicato-dentatis incisive basi rotundato-cuneatis, racemis simplicibus, verticillastris æqualibus approximatis vel infimis remotis, bracteis lineari-subulatis, calycis glabri dentibus lanceolato-setaceis hispidis, filamentis nudis.

Hab. in India Orientali: in peninsulæ montibus Madurensibus *Wight*! (*h. s. sp. comm. a cl. Wight.*)

Caulis, folia, bracteæ, rhachis, et dentes calycini pilis longis albis patentibus hispidi, cæterum glabri. Folia fere *Lamii* vel *Galeopsidis* 1-1½-pollicaria. Racemi 3-4-pollicares, densi vel basi interrupti. Flores numerosi. Calyx fructifer 2½ lin. longus, glaber, membranaceus, apice breviter dentatus et hispidus. Corolla minuta. Filamenta glabra vel tenuiter pubescentia, calycis tubo subæqualia.

15. *P. MENTHOIDES* (Blume Bijdr. 825).

Hab. in Java: in sylvis umbrosis humidis montis Gede *Blume*.

"*P. caule herbaceo, foliis ovatis utrinque acutiusculis supra basin duplicato-dentatis pubescentibus, spica terminali elongata simplici, verticillis approximatis, staminibus nudis.*" *Blume l. c.*

XVIII. DYSOPHYLLA.

Menthæ sp. *Linn.*

Dysophylla. *Blume Bijdr. 826.*

Chotekia. *Opiz et Corda in Bot. Zeit. 1830. 1. 33.*

Calyx ovatus, æqualis, 5-dentatus, intus fauce nuda. Corolla tubo incluso, limbo quadrifido subæquali, lobo supremo integro vel emarginato, infimo subpatente. Stamina 4, exserta, recta vel vix declinata.

Filamenta medio barbata. Antheræ terminales, uniloculares, rima transversali dehiscentes. Stylus apice subæqualiter bifidus, lobis subulatis, stigmatibus minutis terminalibus.—Herbæ. Folia opposita vel verticillata. Verticillastri multiflori, in spicis terminalibus dense approximati vel imbricati.

This is also an East Indian genus, differing from the last chiefly by the more regular corolla.

CONSPECTUS SPECIERUM.

§ 1. OPPOSITIFOLIÆ. *Folia opposita.*

- | | |
|---|--------------------|
| Tota cano-tomentosa | 2. D. MYOSUROIDES. |
| Caulis adpresse pubescens. Folia hispida | 1. D. STRIGOSA. |
| Caulis pilis longis patentibus hirsutissima | 3. D. AURICULARIA. |

§ 2. VERTICILLATÆ. *Folia verticillata.*

- | | |
|--|---------------------|
| Caulis et folia villosa. | |
| Rami floriferi simplices procumbentes. Folia subintegerrima | 4. D. CRUCIATA. |
| Rami floriferi erecti ramosi. Folia elongata serrata | 5. D. QUADRIFOLIA. |
| Caulis et folia saltem inferiora glabra. | |
| Folia basi dilatata vel rotundata. | |
| Herba pusilla. Folia vix 3 lin. longa | 9. D. STELLATA. |
| Folia plus pollice longa | 7. D. CRASSICAULIS. |
| Folia basi angustata. | |
| Humilis. Calycis fructiferi dentes erecti subconniventes | 8. D. PUMILA. |
| Elata ramosissima. Calycis fructiferi dentes stellato-patentes | 6. D. VERTICILLATA. |

§ 1. OPPOSITIFOLIÆ. *Folia opposita.*

1. D. STRIGOSA (Benth. in Wall. Pl. As. Rar. 1. 30), pilis adpressis strigosis pubescens, caule erecto, foliis oppositis subsessilibus lanceolato-ovatis grosse serratis floralibus lanceolatis floribus brevioribus, spicis crassis laxiusculis, calycis ovati hirsuti dentibus subulatis erectis.

Hab. in India Orientali: ad Silhet Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis sesquipedalis et ultra, obtuse tetragonus. Folia sesquipollicaria, acutiuscula, basi rotundata, rugosa, hispida. Spicæ subinterruptæ, 3-4 pollices longæ, semipollicem crassæ. Bractæ parvæ, subulatæ. Calycis dentes longiores quam in cæteris speciebus, et corolla major subirregularis, staminibus longioribus. Species inter *Dysophyllam* et *Pogostemon* media, an ad hoc genus referenda?

2. D. MYOSUROIDES (Benth. in Wall. Pl. As. Rar. 1. 30), sericeo-tomentosa, caule erecto, foliis oppositis breviter petiolatis floralibus ovatis minutis, spicis densis, calycis tomentosi dentibus brevissimis rectis.

Mentha myosuroides. Roth. Nov. Spec. Pl. 257.

Hab. in Indiæ Orientalis peninsula Heyne! (*h. s. sp. e Mus. Angl. Ind.*)

Planta humilis, ex omni parte tomento molli subsericeo canescens. Caulis semipedalis vel vix pedalis, erectus, ramosus, obtuse tetragonus. Folia plerumque pollicaria, crassiuscula, mollia, venoso-rugosa, obtusiuscula, margine irregulariter subcrenata, basi in petiolum brevem angustata. Spicæ crassitie pennæ anserinæ, nunc vix pollicares, sæpe vero tenuiores, 4-5-pollicares. Corolla minuta.

June 1833.

3. *D. auricularia* (Blume Bijdr. 826), pilis mollibus patulis hirsuta, caulibus procumbentibus, foliis oppositis subsessilibus ovato-oblongis grosse serratis floralibus ovato-lanceolatis flores subæquantibus, spicis densissimis, calycis villosi dentibus ovatis post anthesin conniventibus.

Majana foetida. Rumph. *Herb. Amb.* 6. 41. t. 16. f. 2.

Mentha foetida. Burm.! *Fl. Ind.* 126.

Mentha auricularia. Linn.! *Mant.* 81.

Hab. in Indiæ Orientalis calidioris et in insulis Archipelagi Indici fossis et udis: in peninsula *Wight*! in Ceylona *Macrae*! in Bengala orientali, ins. Penang et ad Taong Dong prope Avam *Wallich*! in Java et in Moluccis *Blume*, in Amboyna et ins. Bourou Moluccarum *Durville*! (*h. s. sp.*)

Habitu spicæ et præsertim pilis crebris patentibus *D. cruciata* affinis, sed caulibus ramosioribus et foliis distinctissima. Folia plerumque hirsutissima, rarius pilis secus nervos paginæ inferioris et hinc inde in paginam superiorem sparsis.

§ 2. VERTICILLATÆ. *Folia verticillata.*

4. *D. cruciata* (Benth. in Wall. Pl. As. Rar. 1. 30), pilis mollibus patulis hirsuta, caulibus elongatis procumbentibus simpliciusculis, foliis quaternis rarius quinis vel senis lanceolatis obtusis integerrimis margine revolutis floralibus lanceolatis flores subæquantibus, spicis densis, verticillastro infimo distincto, calycis villosi dentibus obtusiusculis suberectis.

Mentha quadrifolia. Don! *Prod. Fl. Nep.* 113. non Roxb.

Chotchia sericea. Opiz et Corda in *Bot. Zeit.* 1830. 1. 35.*

Hab. in India Orientali: in Napalia *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Rami procumbentes videntur, nec ut in sequentibus basi fluitantes. Sunt plerumque simplices, 1-2-pedales et longiores, flagelliformes, ad nodos fragiles, et ut in *D. auricularia* ex omni parte pilis patentibus molliter villosi. Folia ad basin caulis crebra, in parte superiore internodiis breviora, circiter pollicem longa. Spica *D. auriculariæ*.

5. *D. quadrifolia* (Benth. in Wall. Pl. As. Rar. 1. 30), tomentoso-villosa, caule erecto, foliis quaternis elliptico-linearibus integerrimis vel remote serratis utrinque angustatis floralibus linearibus verticillastro brevioribus, spicis elongatis basi subinterruptis, calycis ovati dentibus anguste lanceolatis acutis erectis.

Mentha quadrifolia. Roxb.! *Hort. Beng.* 44. non Don.

β *velutina*, foliis nervosis basi in petiolum angustatis.

γ *pubescens*, foliis anguste linearibus.

Hab. in India Orientali: in aquis stagnantibus prope Calcutta *Royle*! in Monte Circar *Roxburgh*! ad Vizagapatam *P. Russell*! β ad Tavoy oræ Tenasserim *Wallich*! γ in montibus Pundua *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Herba aquatica, caulibus basi fluitantibus glabriusculis, ramis emersis 1-2-pedibus, uti folia et spicæ pilis erecto-appressis simplicibus rigidiusculis plus minusve constanter velutino-tomentosis, tomento in var. α et β densissimo, in var. γ tenuiore.

* I have no doubt that this is the true *D. quadrifolia*, although Opiz describes the leaves as opposite. This circumstance may be owing to accident, and the description agrees in every other respect.

Folia crassiuscula, $1\frac{1}{2}$ -3-pollicaria, mollia, acuta, subserrata; in var. γ breviora, angustiora, rigidiora. Spicæ 1-6-pollicares.

6. *D. VERTICILLATA* (Benth. in Wall. Pl. As. Rar. 1. 30), glabra, caule erecto vel adscendente, ramis foliisque 6-10-verticillatis, foliis elongato-linearibus utrinque angustatis, spicis densissimis, calycis fructiferi dentibus ovatis stellato-patulis.

Mentha stellata. Lour.! *Fl. Cochinch.* 361.

Mentha verticillata. Roxb.! *Hort. Beng.* 44.

Hab. in India Orientali: in Bengala *Roxburgh!* *Royle!* ad Silhet *Wallich!* in Cochinchina *Loureiro!* (*h. s. sp. e Mus. Angl. Ind.*)

Herba aquatica, basi fluitans, radicans. Rami floriferi erecti, pedales sesquipedalesve, crassi, sulcati, ramulis numerosis verticillatis. Folia 2-3 pollices longa, acuta, plerumque argute et remote serrata, omnia glaberrima. Spicæ vix pollicares, densissime imbricatæ. Calyces fructiferi vix aucti, sed dentibus subrecurvo-patentibus stellati. Corolla minuta, purpurea. Achenia lævia.

7. *D. CRASSICAULIS* (Benth. in Wall. Pl. As. Rar. 1. 30), glabra, caule adscendente ramoso, foliis quaternis nunc quinis vel senis lanceolato-linearibus basi dilatatis subintegerrimis floralibus lanceolatis flores superantibus, spicis elongatis, calycis pubescentis dentibus obtusiusculis suberectis.

Hab. in India Orientali: ad Silhet et in Bengala *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Species inter *D. pumilam* et *D. verticillatam* media. A priori differt statura elatiori (pedali et ultra), bracteis lanceolatis; a posteriori calycis fructiferi dentibus erectis; ab utraque foliis basi dilatatis, spicis duplo triplove longioribus crassioribus, et floribus majoribus. Folia bipollicaria et ultra. Spica fructifera sæpe 4 poll. longa.

8. *D. PUMILA* (Benth. in Wall. Pl. As. Rar. 1. 30), glabra, caule adscendente ramoso, foliis quaternis inferioribus subsenis elliptico-linearibus utrinque angustatis remote serratis floralibus ovatis, calycis villosi campanulati fructiferi inflati dentibus obtusiusculis suberectis.

Mentha pumila. Graham! in *Edin. New Phil. Journ.* 1828, 393.

Mentha verticillata. Don! *Prod. Fl. Nep.* 114. Hook. in *Bot. Mag.* 56. t. 2907. non Roxb.

Hab. in India Orientali: in Napalia *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Herba aquatica, ex omni parte, calycibus exceptis, glaberrima. Caulis basi repens vel fluitans, radicans. Rami floriferi suberecti, semipedales vel parum longiores. Folia infima subsena, angusta, pollicaria, et vix dentata; superiora quaterna, latiora, et hinc inde argute serrata. Rami uti folia verticillati. Spicæ in apices caulis et ramorum vix pollicares, densissimæ. Calyx fructifer vix elongatus, sed latissime campanulatus, dentibus latiusculis erectis vel subconniventibus. Corolla purpurea, calyce florifero vix duplo longior, dente supremo emarginato. Achenia minuta, subrotundo-compressa, lævia.

9. *D. STELLATA* (Benth. in Wall. Pl. As. Rar. 1. 30), glabra vel superne pubescens, caule repente, ramis erectis simpliciusculis, foliis 6-8-verticillatis anguste linearibus internodia subæquantibus integerri-
mis floralibus subulatis, calycis villosi ovati dentibus erectis acutiusculis.

Mentha stellata. Hamilt. MSS. non Loureiro.

Mentha quaternifolia. Roth. Nov. Spec. 256?

Hab. in India Orientali: in Malabaria *Heyne!* et in Mysore *Hamilton!* (*h. s. sp. e Mus. Angl. Ind.*)

Herba humilis, pusilla, facie *Galii veri*. Caules basi repentes, radican-
tes. Rami adscendentes vel erecti, 3-6-pollicares, basi glabri, sub spica pubescentes.
Folia crebra, inferiora glabra, suprema sub spica pubescentia, 2-3 vel vix 4 lin.
longa, linearia, acuta, margine integerrima, subrevoluta, basi subdilatata, floralia
calycem subæquantia. Spica densa, 1-3-pollicaris, villosa. Calyx fructifer parum
elongatus. Corolla parva, purpurea, dente supremo emarginato.

XIX. ELSHOLTZIA.

Elsholtzia. Willd.

Menthæ sp. Roxb. et Auct.

Perillæ sp. Don Prod. Fl. Nep.

Aphanochilus. Benth. in Bot. Reg. 15. ad calc. n. 1282.

Cyclostegia. Benth. in l. c.

Calyx ovatus vel campanulatus, subæqualis, 5-dentatus, intus fauce
nuda, fructifer sæpe elongatus. Corolla tubo calycem æquante vel
rarius exserto, limbo breviter 4-fido, lobo supremo suberecto subcon-
cavo emarginato, inferioribus patentibus. Stamina 4, sæpius exserta,
distantia, inferiora sublongiora. Filamenta nuda. Antherarum loculi
divergentes vel divaricati, demum confluentes. Stylus apice subæqua-
liter bifidus, lobis subulatis, stigmatibus subterminalibus. Achenia
ovoidea, parva, læviuscula. — Herbæ suffruticesve. Flores minuti.
Verticillastri multiflori, in spicis nunc laxis gracilibus teretibus vel
secundis nunc dense imbricatis dispositi. Spicæ sæpius numerosæ,
paniculatæ.

With the exception of two Javanese species and the *E. cristata*,
which is common over all Asia, this genus, as far as is hitherto known,
is confined to the mountains of the East Indian continent.

The three sections of *Elsholtzia* differ, in many respects, from
each other in habit; but on a closer examination of their characters,
these distinctions do not appear to be of sufficient importance to
preserve the genera *Aphanochilus* and *Cyclostegia*, which I had
originally established, but which I have now considered as mere
sections of *Elsholtzia*.

CONSPECTUS SPECIERUM.

SECT. I. APHANOCHILUS. *Spicæ æquales foliis floralibus lan-
ceolatis vel ovatis, vel secundæ foliis floralibus lanceolatis.*

Suffrutices elati. Folia plus 3 poll. longa.

Folia lato-ovata basi rotundata . . . 1. *E. FLAVA.*

Folia oblonga basi longe angustata.

Rami glaberrimi. Spicæ secundæ . . . 3. *E. STAUNTONI.*

Rami pubescentes. Spicæ æquales . . . 2. *E. POLYSTACHYA.*

Herbæ annuæ. Folia parva vel vix 2 poll. longa.

Herbæ glabriusculæ. Spicæ graciles.

Folia oblonga. Spicæ secundæ . . . 4. *E. BLANDA.*

Folia rhombo-ovata. Spicæ æquales . . . 5. *E. INCISA.*

Herbæ villosæ. Spicæ densæ.

Folia floralia lanceolato-subulata.

Caulis erectus.

Folia rugosiuscula supra glabra subtus
breviter tomentosa . . . 6. *E. PUBESCENS.*

Folia rugosa supra pubescentia subtus
molliter tomentosa . . . 7. *E. MOLLIS.*

Caulis procumbens. Folia piloso-hispida . . . 8. *E. PILOSA.*

Folia floralia lato-ovata obtusa . . . 9. *E. ERIOSTACHYA.*

SECT. II. CYCLOSTEGIA. *Spicæ densæ. Folia floralia connata imbricata cyathiformia membranacea venosa margine ciliata.*

Species unica 10. E. STROBILIFERA.

SECT. III. ELSHOLTZIA. *Spicæ et folia floralia lato-ovata secunda.*

Species unica 11. E. CRISTATA.

SECTIO I. APHANOCHILUS.

Aphanochilus. *Benth. in Wall. l. c.*

Spicæ sæpius laxæ paniculatæ æquales vel subsecundæ foliis floralibus lanceolatis vel subulatis, nunc vero dense imbricatæ æquales foliis floralibus ovatis vel lanceolatis. Antherarum loculi divergentes vel divaricati, demum confluentes.

1. E. FLAVA, suffruticosa erecta, foliis petiolatis amplis late ovatis acuminatis nervosis floralibus bractæformibus ovato-lanceolatis acuminatis calyces subæquantibus, spicis laxis teretibus axillaribus terminalibusque, corollis calyce subduplo longioribus.

Aphanochilus flavus. *Benth. in Wall. Pl. As. Rar. 1. 28. t. 34.*

Hab. in Napalia: in montibus altissimis ad Sheopore et versus Gossain Than *Wallich!* ad Kidarkonta *Royle!* (*h. s. sp. e Mus. Angl. Ind.*)

Suffrutex 2-pedalis, omnibus partibus pubescentia molli canescente obsitis. Folia palmaria, basi rotundata vel cuneata, supra glabriuscula, subtus pubescentia rugosiuscula mollia. Spicæ plurimæ, axillares, cylindricæ, 2-3-pollicares, demum fere digitum minimum crassæ, densifloræ, in paniculam terminalem elongatam subapproximatæ. Folia floralia (in spica) lato-ovata acuminata. Verticillastri multiflori, laxiusculi. Bractæ subulatæ. Calyx oblongus, dentibus lanceolatis acutis. Corolla flava, tubo subincurvo, limbi lobo supremo obtuso retuso. Achenia ovata, lævia.

2. E. POLYSTACHYA, suffruticosa erecta, ramis pubescentibus, foliis petiolatis oblongis utrinque angustatis nervosis floralibus bractæformibus minutis, spicis laxis teretibus paniculatis, corollis calyce subtriplo longioribus.

Perilla fruticosa. Don! Prod. Fl. Nep. 115.

Aphanochilus polystachyus. *Benth. in Wall. Pl. As. Rar. 1. 28. t. 33.*

Hab. in Napalia: in montibus altissimis ad Sheopore et Chandaghiri *Wallich!* in Mussooree *Royle!* (*h. s. sp. e Mus. Angl. Ind.*)

Ab E. flava differt pubescentia brevissima subnulla nec canescente, foliis dimidio angustioribus basi longe angustatis et integerrimis in parte superiore regulariter crenulatis, spicis terminalibus fastigiatis tenuioribus laxioribus, calycibus multo minoribus. Folia crassiuscula, 3-4-pollicaria, 1-1½ poll. lata.

3. E. STAUNTONI, suffruticosa erecta, ramis glabris, foliis petiolatis oblongo-lanceolatis acuminatis serrato-crenatis basi longe angustatis utrinque glaberrimis, floralibus bractæformibus minutis, spicis elongatis canescentibus subpaniculatis, verticillastris laxiusculis secundis, corollis calyce incano subduplo longioribus.

Hab. in China: inter Pekin et Jehol *Sir G. Staunton!* (v. s. sp. in herb. Banks.)

A *E. polystachya* differt ramis glaberrimis, foliis angustioribus utrinque longius angustatis, spicis longioribus (semipedalibus) canescentibus. Calyces elongati, dentibus acutiusculis. Stamina longe exserta.

4. *E. BLANDA*, herbacea canescens, foliis oblongis utrinque angustatis floralibus lanceolato-subulatis, verticillastris laxis secundis, spicis paniculatis, corollis calycem vix excedentibus.

Mentha blanda. Wall. MSS.

Perilla elata. Don! *Prod. Fl. Nep.* 115.

Aphanochilus blandus. Benth. in Wall. *Pl. As. Rar.* 1. 29.

Hab. in India Orientali: in montibus Napaliæ, Silhet et Avæ *Wallich!* et in Monte Horeb Arabiæ *Forsköhl!* (h. s. sp. e *Mus. Angl. Ind.*)

Caulis erectus, 1-2-pedalis, ramosus, obtuse tetragonus. Foliorum forma eadem ac in *E. polystachya*, sed multo minora (vix bipollicaria) et tenuiora, margine remote serrata nec crenata, subtus canescentia. Spicæ numerosæ, paniculatæ, 3-6-pollicares, secundæ. Folia floralia inferiora lanceolata, cætera subulata, uti bracteæ calyce breviora. Verticillastri circiter 20-flori, dimidiati. Flores minuti, breviter pedicellati. Calyx post anthesin auctus, membranaceus, ovatus, dentibus subulatis erectis. Corolla albida. Odor totius plantæ aromaticus debilis.

5. *E. INCISA*, herbacea glabriuscula, foliis petiolatis rhomboideo-ovatis inciso-serratis, verticillastris æqualibus laxis, spicis paniculatis, corollis vix calycem excedentibus.

Mentha incisa et M. fœtens. Wall. MSS.

Mentha blanda. DC.! *Pl. Rar. Hort. Gen.* 23. t. 8.*

Perilla leptostachya. Don! *Prod. Fl. Nep.* 115.

Hyptis stachyodes. Link! *Enum.* 2. 106.

Aphanochilus fœtens. Benth. in Wall. *Pl. As. Rar.* 1. 29.

Aphanochilus paniculatus. Benth. in Wall. *Pl. As. Rar.* 1. 30.

Hab. in India Orientali: in Deyra Dhoon *Royle!* in Napalia et ad Taong Dong Avæ *Wallich!* (h. s. sp. e *Mus. Angl. Ind. et comm. a cl. Royle.*)

Affinis *E. blandæ*, sed humilior. Folia 1-1½ poll. longa, et sæpe plus pollice lata, profunde inciso-crenata. Petiolus limbo sæpius longior. Spicæ numerosæ, graciles, æquales, interruptæ, vix 1½ lin. crassæ, fructiferæ densæ, 4 lin. crassæ. Folia floralia calyces superantia et interdum duplo longiora. Flores *E. blandæ*, sed calyx fructifer magis auctus, ovato-elongatus, breviter 5-dentatus, membranaceus, tenuissime pubescens. Corolla minuta, albida.

6. *E. PUBESCENS*, herbacea, caule tomentoso-pubescente, foliis breviter petiolatis ovato-oblongis acutis crenato-serratis basi integerimis supra glabriusculis subtus tenuiter tomentosis, verticillastris æqualibus densis, corollis vix calycem excedentibus.

Hab. in Java: *Commerson!* (v. s. sp. in herb. *Mus. Par. et Vahl.*)

Caulis erectus, ramosus, obtuse tetragonus. Folia supra glabra vel oculo armato tenuissime pubescentia, subtus tenuiter tomentosa, glanduloso-punctata; floralia verticillastos superantia, bractæformia, lanceolata, acuta, integerrima. Verticil-

* Dr. Wallich had, through a mistake, sent both this and the preceding species as *Mentha blanda*; and from De Candolle's imperfect specimens of the true *Mentha blanda*, he believed the one he figured to be the same. The *E. incisa* has not always the strong smell mentioned by Dr. Wallich, and therefore I have now preferred this specific name to that of *fœtens*, which I had previously adopted.

lastris spicati, inferiores distincti, dense multiflori. Spicæ graciles, 4-5-pollicares, villosæ, axi hispido, florigeræ 3-4 lin., fructiferæ 8-9 lin. diametro. Bracteæ lanceolatæ, calycem æquantes. Calyces subsessiles, post anthesin aucti, villosi, breviter et æqualiter quinquedentati. Stamina 2 exserta, 2 corolla breviora.

7. *E. MOLLISSIMA*, herbacea tomentoso-villosa, foliis breviter petiolatis ovato-oblongis acutis crenatis basi rotundatis vel angustatis, verticillastris æqualibus densis, corollis vix calycem excedentibus.

Hab. in Java *Leschenault*! (v. s. sp. in herb. Mus. Par.)

Caulis erectus, ramosus, foliosus. Folia supra ad nervos pubescentia, subtus uti petioli tomento molli vestita; floralia bracteæformia, calyce breviora. Spica densa, 2-3-pollicaris, 8-9 lin. diametro, molliter villosa. Bracteæ lineares, calyce breviores. Calyces ovati, pallidi, villosi, ore obliquo, dentibus abbreviatis acutis subpungentibus, supremo longiore. Corolla et stamina *E. pubescentis*.

8. *E. PILOSA*, herbacea piloso-hispida, foliis petiolatis ovatis vel ovato-lanceolatis floralibus bracteæformibus subulatis imbricatis flores superantibus, verticillastris dense imbricatis, spicis hispidis paniculatis?

Aphanochilus pilosus. *Benth. in Wall. Pl. As. Rar.* 1. 30.

Hab. in India Orientali: in Napalia *Wallich*! (h. s. sp. e Mus. Angl. Ind.)

Herba videtur annua, procumbens. Caules circiter pedales, tetragoni. Folia pollicaria, obtusa, crenata, basi cuneata et in petiolum decurrentia, rugosiuscula, utrinque hispidula; floralia infima conformia, superiora subulata. Spicæ sesquipollicares, in apices caulis et ramorum solitariae, villosæ. Bracteæ calyce sublongiores, uti dentes calycini subulatae. Corolla minuta.

9. *E. ERIOSTACHYA*, herbacea pubescens, foliis breviter petiolatis ovato-lanceolatis floralibus bracteæformibus ovatis floribus brevioribus, verticillastris dense imbricatis, spicis tomentosis paniculatis.

Aphanochilus eriostachyus. *Benth. in Wall. Pl. As. Rar.* 1. 29.

Hab. in India Orientali: in Buddrinath et Napaliæ montibus et Emodum versus *Wallich*! (h. s. sp. e Mus. Angl. Ind.)

Habitus fere *E. strobilifera*. Caules erecti, pedales et ultra, ramosi, obtuse tetragoni, faciebus pubescentibus. Folia 1-1½-pollicaria, obtusiuscula, serrato-crenata, basi rotundata, mollia, supra villosula, subtus pallida, subtomentosa; floralia infima sæpe subconformia, superiora lato-ovata, obtusa, imbricata, calyces subæquantia. Spicæ plerumque pollicares. Calyces molliter lanato-tomentosi. Corolla calycem paullo superans.

SECTIO II. CYCLOSTEGIA.

Cyclostegia. *Benth. in Bot. Reg.* 15. ad calc. n. 1282.

Spica dense imbricata. Folia floralia connata membranacea venosa imbricata cyathiformia margine ciliata. Antheræ ovatae, loculis confluentibus.

10. *E. STROBILIFERA*, herbacea, foliis petiolatis ovatis floralibus connatis cyathiformibus membranaceis venosis margine ciliatis, spicis imbricatis terminalibus subpaniculatis.

Cyclostegia strobilifera. *Benth. in Wall. Pl. As. Rar.* 1. 30. excl. syn. *Rumph. et Burm.*

Hab. in India Orientali: in montibus Napalia et ad Gossain Than Emodi *Wallich*! ad Kidarkonta *Royle*! (h. s. sp. e Mus. Angl. Ind.)

Herba erecta, semipedalis pedalisve, glabra vel basi et ad axillas pilis mollibus pubescens. Folia pollicaria, basi parum angustata. Spicæ cylindricæ, 1-2-pollicares. Verticillastri 6-10-flori. Flores foliis floralibus subinclusi. Bractæ minutæ. "Odor perquam gratus aromaticus" (*Wall.*).

SECTIO III. ELSHOLTZIA.

Elsholtzia. *Willd. Spec.* 3. 29.

Spicæ uti folia floralia lato-ovata secundæ. Antheræ lineares, loculis divaricatis.

11. *E. CRISTATA* (*Willd. Sp.* 3. 29. et in *Uster Mag.* 2. 5. t. 1.), herbacea glabriuscula, foliis petiolatis ovatis oblongisve utrinque angustatis floralibus lato-ovatis acutis ciliatis secundis, verticillastris approximatis secundis, spicis paniculatis.

Mentha ovata. Cav. Ic. Rar. 4. 36. t. 360. f. 1.

Mentha Patrini. Lepech. in Nov. Act. Petrop. 1. 336. t. 8.

Hyssopus ocymifolius. Lam. Dict. 3. 187.

Hyssopus bracteatus. Gmel. C. P. ex Steud. Nom. Bot. 296.

E. cristata. Bot. Mag. 52. t. 2560.

Hab. in Asia fere omni et etiam in Europæ cultis verosimiliter ex Asia allata: in vallibus Emodi *Wallich!* versus Cashmere *Royle!* in Sibiria circa lacum Baical et in tractibus Dahuriæ et circa Nertchinsk *Lepechin*, in jugo Altaico! in Suecia *Fries. (h. s. sp. e Mus. Angl. Ind. et comm. a cl. Prescott et v. v.)*

Herba 1-1½-pedalis, annua, erecta, ramosa, fere glabra. Folia 1-2-pollicaria. Spicæ terminales, 2-3-pollicares. Verticillastri multiflori, approximati. Folia floralia viridi-membranacea, flores superantia. Calyces ciliato-hirsuti. Bractæ minutæ, lineares. Corollæ minutæ, pallide purpurascentes.

Species e genere excludendæ.

E. JAVANICA Blume = *Plectranthus javanicus*.

E. OPPOSITIFOLIA Poir. = *Colebrookia oppositifolia*.

E. OCYMOIDES Pers. = *Geniosporum prostratum*.*

E. PANICULATA Willd. = *Pogostemon paniculatum*.

XX. TETRADENIA.

Tetradenia. Benth. in Bot. Reg. 15. ad calc. n. 1300. (1830, Feb.) non *Nees v. Esenbeck in Wall. Pl. As. Rar.* 2. 57. (1831.)

Calyx campanulatus, 5-dentatus, dente superiore latiore, fauce intus nuda. Corolla tubo incluso, limbo campanulato 5-fido, lobis ovatis subæqualibus. Stamina 4, æqualia, erecta, distantia. Antherarum loculi confluentes, valvulis reflexis. Stylus apice breviter bifidus. Ovarii lobi intra glandulas disci 4 æquales reconditi.

A single Madagascar plant constitutes this genus. It is intermediate between *Elsholtzia* and *Colebrookia*: it differs from the first by the calyx and by the more regular corolla; from *Colebrookia* by the

* Synonymon sub *Geniosporo*, supra p. 21. omissum.

calyx not plumose at the maturity of the fruit, by the style less deeply cleft; and from both by the remarkable glands of the ovarium.

1. *T. FRUTICOSA*. (Benth. in l. c.)

Mentha fruticosa. *Hels. et Bojer MSS.*

Hab. in Madagascaria *Helsing et Bojer ! Lyall !* (v. s. sp. in herb. *Hooker et Mus. Par.*)

Frutex ramis vix tetragonis cano-vel subrufo-tomentosis. Folia petiolata, ovata vel oblonga, crenata, basi rotundata, mollia, rugosa, supra viridia, tomentoso-pubescentia, subtus cano-tomentosa. Verticillastri 6-10-flori, spicati. Spiculæ numerosæ, subpollicares, pedunculatæ, racemoso-paniculatæ, panícula ramosissima densa. Flores minuti, sessiles. Folia floralia sub ramis paniculæ caulinis subconformia, at minora, sub spiculis multo minora, suprema sub verticillastris bractæformia, lato-ovata, ante anthesin imbricata, calyces æquantia, per anthesin decidua. Bractæ minutæ, subnullæ. Calyces minuti, extus cano-tomentosi. Corolla calycem duplo superans. Stamina exserta. Glandulæ ovarii rubræ, ovaria triplo superantes. Achenia matura non vidi.

XXI. COLEBROOKIA.

Colebrookia. *Smith. Exot. Bot. 2. 111.*

Calyx campanulatus, æqualis, 5-partitus, plumosus, maturatione papposus, acheniis adherens. Corolla tubo calycem æquante, limbo brevissimo subæquali 4-fido, lobo superiore emarginato. Stamina 4, æqualia, distantia, filamentis brevissimis. Antheræ subsessiles, biloculares, loculis parallelis. Ovarii discus æqualis, eglandulosus. Stylus profunde bifidus, lobis subulatis, in parte superiore stigmatiferis.

Two species, both East Indian, and perhaps merely varieties of the same.

1. *C. OPPOSITIFOLIA* (Smith ! *Exot. Bot. 2. 111*), ramis, foliis, spicisque oppositis.

Elsholtzia oppositifolia. *Poir. Dict. Suppl. 5. 663.*

Hab. in India Orientali : in montibus Napaliæ et Kamaon *Wallich !* in Deyra Dhoon *Royle !* (h. s. sp. e *Mus. Angl. Ind.*)

Frutex ramis dense tomentoso-lanatis subrufis. Folia petiolata, 4-6-pollicaria et longiora, oblongo-elliptica, utrinque angustata, margine crenulata, rugosa, supra molliter pubescentia, subtus tomentosa vel lanata, pallida, incana vel rufescentia. Folia infima subconformia, at minora, angustiora, suprema bractæformia, ante anthesin imbricata. Spiculæ 1-3-pollicares, tomentosæ, pedunculatæ, paniculatæ. Verticillastrorum cymæ distinctæ, capitulæformes, densæ, sessiles, bracteis basi connatis involucriatæ. Flores parvi. Calycis tubus brevissimus; dentes subulati, maturatione elongati, eleganter plumosi, sæpe purpurascens. Corolla tubulosa, medio contracta; limbi lobi ovati, brevissimi. Stylus exsertus. Achenia oblonga, subtriquetra, apice villosa.

2. *C. TERNIFOLIA* (Roxb. ! *Pl. Corom. 3. 40. t. 245*), ramis, foliis, spicisque ternatim verticillatis.

Hab. in India Orientali : in montibus Carnaticis *Roxburgh !* (h. s. c. e *Mus. Angl. Ind.*)

A præcedente vix differt. Folia plerumque magis tomentosa et brevius petiolata, et spiculæ densiores videntur.

June 1833.

XXII. PERILLA.

Perilla. *Linn. Gen.* 578.

Calyx campanulatus, per anthesin subæqualis, 5-fidus, post anthesin nutans, bilabiatus, labio superiore dilatato 3-fido, dente medio minore, inferiore 2-fido, intus fauce nuda. Corolla calycem fere æquans, subæqualis, limbo breviter 5-fido. Stamina 4, subæqualia, distantia, erecta, corollam æquantia. Antheræ biloculares, loculis parallelis demum divergentibus vel subdivaricatis. Stylus profunde bifidus, stigmatibus terminalibus. Achenia sicca, lævia.—Herba inflorescentia fere *Moschomatis*, floribus in spicis secundis axillaribus terminalibusque dispositis.

The only species known of this genus is Indian. There are, however, two Chinese plants in the Banksian herbarium which have the habit of *Perilla*, but of which I have been unable to examine the flowers so as to determine the genus. It is also probable that some of Thunberg's Japanese *Ocymums* may be *Perillas*.

1. *P. OCYMOIDES* (Linn. Gen. 578).*Ocymum frutescens.* *Linn. Spec.* 2. 832.*Melissa maxima.* *Arduin. Spec.* 2. 28. t. 13.*Mentha perilloides.* *Lam. Dict.* 4. 112. non Linn.

Hab. in India Orientali: in montibus Kamaon, Napaliæ, Silhet et Avæ Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis herbaceus, erectus, 1-3-pedalis, crassus, firmus, obtuse tetragonus, sulcatus, pilosus. Folia longiuscule petiolata, 2-4-pollicaria, ovata, acuminata, grosse serrata, basi cuneata vel in petiolum angustata, utrinque viridia, tenuia, subrugosa, ad venas pilosa. Racemi folio breviores. Flores numerosi. Calyces per anthesin minuti, fructiferi valde aucti, breviter pedicellati, pilosi. Dentes labii superioris breves, lati, inferioris longiores, anguste lanceolati, omnes acuti. Corolla minuta, albida. Achenia pallida.

*Species e genere excludendæ.**P. ELATA* Don = *Elsholtzia blanda*.*P. FRUTICOSA* Don = *Elsholtzia polystachya*.*P. LEPTOSTACHYA* Don = *Elsholtzia incisa*.*P. POLYSTACHYA* Don = *Pogostemon glabrum*.

XXIII. ISANTHUS.

Isanthus. *Mich. Fl. Bor. Amer.* 2. 3.

Calyx campanulatus, æqualis, 10-nervis, profunde 5-dentatus, intus fauce nuda. Corolla vix calycem excedens, tubo recto brevi, limbo campanulato, lobis 5 æqualibus rotundatis patentibus. Stamina 4, subæqualia, distantia, erecta, corollam subæquantia. Antheræ biloculares, loculis parallelis vel demum divergentibus. Stylus apice breviter bifidus, lobis subulatis, stigmatibus terminalibus. Achenia sicca, obovata,

reticulata, lacunoso-rugosa.—Herba habitu et inflorescentia *Satureiæ hortensis*.

A single North American species constitutes this genus, which by its fruit is allied to the *Ajugoideæ*, but the corolla and sexual organs are entirely those of *Menthoideæ*.

1. *I. CÆRULEUS* (Mich. Fl. Bor. Amer. 2. 4. t. 30).

Trichostema brachiata. Linn. Spec. 834.

Hab. in Americæ borealis cretaceis: in Pennsylvania, Marylandia et Virginia *Nuttall*, Carolina et Kentucky *Michaux*, at copiosior trans montis *Nuttall*, ad Saint Louis *Drummond*! (*h. s. sp.*)

Herba annua, semipedalis pedalisve, erecta, ramosa, subviscida, ramis pubescentibus pilosisve. Folia breviter petiolata, oblongo-elliptica, utrinque angustata, margine integerrima vel subsinuata, trinervia, utrinque viridia, glabra vel sæpius pubescentia vel pilosa, floralia conformia, gradatim minora. Pedunculi solitarii, axillares, foliis breviores, uniflori, sub calyce sæpius bibracteati. Calyx et achenia *Amethystæ cæruleæ*. Corolla *Menthæ*, pallide cærulea.

XXIV. PRESLIA.

Preslia. *Opiz in Bot. Zeit.* 1824. 1. 322.

Calyx ovatus, æqualis, 4-dentatus, dentibus aristatis, fauce intus subvillosa. Corolla æqualis tubo incluso, limbo 4-partito, lobis æqualibus integris. Stamina 4, æqualia, distantia, erecta. Filamenta glabra. Antheræ biloculares, loculis parallelis. Stylus apice bifidus, lobis subæqualibus apice stigmatiferis. Achenia oblonga, sicca, lævia.—Herba uliginosa habitu *Satureiæ* affinis. Inflorescentia *Mentharum verticillatarum*.

A single species, common in the temperate and southern parts of Europe.

1. *P. CERVINA* (Fresen. in Syll. Pl. Soc. Ratisb. 2. 238).

Mentha cervina. Linn. Spec. 807.

Mentha punctata. Mæsch. Meth.

Pulegium cervinum. Mill. ! Dict. n. 3.

Pulegium angustifolium. Riv. Mon. Irr. t. 23. f. 2.

Preslia glabriflora. *Opiz in Bot. Zeit.* 1824. 1. 323.

Preslia villiflora. *Opiz in l. c.*

Hab. in Europæ mediæ et australioris uliginosis et in fossis udis: in Lusitania *Brotero*, Hispania! Gallia australi! (*h. s. et v. v. sp.*)

Herba prostrata, dura, glabra. Folia sessilia, linearia vel lineari-lanceolata, obtusa, integerrima, utrinque viridia, punctata, ad axillas subfasciculata, floralia conformia, suprema sterilia. Verticillastri multiflori, densi, distantes, folio florali subbreviores, 6-8 lin. diametro. Bractææ ovatæ vel ovato-lanceolatæ, flores subæquantes, foliaceæ, basi in involucrio palmatifido connatæ. Calyces glabri vel rarius apice hirsuti, dentibus ovatis foliaceis margine interiore ciliato sub apice dorso aristatis. Corolla calyce duplo longior, pallide purpurascens, laciniis extus pilosiusculis. Stamina breviter exserta. Stylus staminibus brevior vel subæqualis. Achenia pallida.

XXV. MENTHA.

Mentha. Linn. Gen. 291.

Calyx campanulatus vel tubulosus, 5-dentatus, æqualis vel subbilabiatus, fauce intus nuda vel villosa. Corolla tubo incluso, limbo campanulato subæquali 4-fido, lacinia superiore latiore subintegra vel emarginata. Stamina 4, æqualia, erecta, distantia. Filamenta glabra, nuda. Antheræ biloculares, loculis parallelis. Stylus breviter bifidus, laciniis apice stigmatiferis. Achenia sicca, lævia.—Herbæ. Verticillastri sæpius multiflori, nunc omnes remoti ad axillas foliorum caulinis conformium, nunc in spicis terminalibus approximati foliis floralibus superioribus bracteæformibus.

This genus contains but few species, chiefly natives of the northern and temperate regions of both the new world and the old, where they are very abundant, and have been scattered over all parts of the world visited by Europeans. There is also one which appears to be truly indigenous in South America, one in Southern Africa, and one in the Indian Archipelago.

The European *Mints*, as is generally the case with plants which are very common in highly civilised and long-cultivated countries, especially aquatic plants, vary very much in appearance; and the repeated attempts by different authors in different countries to reduce these inconstant and ephemeral variations to so many species, have thrown so much confusion into this difficult genus, that it is now almost impossible to clear up the chaos thus produced. The synonyms given below have been taken from the best sources I have had within my reach. I have carefully examined Smith's and Sole's collections. I am indebted to M. Host for a nearly complete set of his species; and I have collected myself, or examined in the herbaria of my friends in this country, in Germany, and in France, a great number of authentic specimens of other authors. But I have so repeatedly found an author's own specimens differing from the characters he attributes to them, and there are still so many which I have not been able to see, that many of my synonyms are scarcely to be relied on; and indeed a large portion of the names given by mere *local* botanists may perhaps be considered scarcely worth tracing with much labour. With regard to the distinctive characters, it will be seen that I have attached more importance to the inflorescence, and less to the hairiness or to the length of the calyx, than modern writers in general; but it has appeared to me that, leaving aside hybrids and accidental varieties, the former is more constant than it is usually supposed to be. Fries's distinction between the petiolate- and sessile-leaved *Menthæ* is also very constant. The difference in the length of the stamina has long been shewn to be in many cases owing to *dioicality*; yet I do not feel assured but that in some it might afford a good specific character.

CONSPECTUS SPECIERUM.

Calycis faux intus nuda.

Bractæ calycem subæquantes vel pedicello longiores. Verticillastri multiflori.

- Folia sessilia.
 Verticillastri in spica terminali approximati.
 Folia supra pubescentia villosa vel tomentosa subtus plerumque alba vel canescentia.
 Folia viridia rugosa villosa . 7. *M. ROTUNDIFOLIA*.
 Folia saltem ad paginam inferiorem cano-vel albo-tomentosa.
 Folia lanceolato-linearia . 1. *M. LAVANDULACEA*.
 Folia ovato-lanceolata ovata vel oblonga.
 Caulis humilis procumbens 2. *M. INCANA*.
 Caulis erectus.
 Folia plicata reflexa undulato-crispa. Spicæ longissimæ . 3. *M. TOMENTOSA*.
 Folia subplana. Spicæ oblongo-cylindricæ 6. *M. SYLVESTRIS*.
 Folia utrinque viridia glabra . 8. *M. VIRIDIS*.
 Verticillastri omnes remoti . 9. *M. PRATENSIS*.
 Folia petiolata.
 Verticillastri vel saltem supremi in spica vel capitulo approximati. Folia floralia verticillastri supremi floribus breviora.
 Planta tota incana tomentosa. Spicæ graciles.
 Folia lanceolato-linearia . 4. *M. SALICINA*.
 Folia ovata . 5. *M. ROYLEANA*.
 Planta viridiuscula. Spicæ basi plerumque interruptæ.
 Verticillastri supremi cylindrico-spicati.
 Folia utrinque molliter villosa 10. *M. PYRAMIDALIS*.
 Folia glabra . 11. *M. PIPERITA*.
 Verticillastri supremi in spica brevi oblonga vel capitulo globoso approximati.
 Herba tota glabra . 12. *M. CITRATA*.
 Caulis et calyces plus minusve pilosi vel herba tota villosa 13. *M. AQUATICA*.
 Verticillastri omnes distincti. Folia floralia caulibus conformia, suprema sæpius sterilia.
 Verticillastri vix 6-flori . 16. *M. LAPPONICA*.
 Verticillastri multiflori.
 Folia omnia oblongo-lanceolata.
 Herba procumbens glabra vel patentim pilosa . 15. *M. CANADENSIS*.
 Herba erecta pilis adpressis 17. *M. LANCEOLATA*.
 Folia saltem inferiora ovata . 14. *M. ARVENSIS*.
 Bractæ minutissimæ.
 Verticillastri multiflori . 18. *M. DAHURICA*.
 Verticillastri subsexflori. (Vide MICRO-MERIA.)
 Calycis faux intus villosa.
 Herba pusilla. Verticillastri pauciflori . 21. *M. REQUIENI*.
 Verticillastri globosi multiflori.
 Folia subtus albo-lanata . 19. *M. MOLLIS*.
 Folia concoloria glabra vel villosa . 20. *M. PULEGIUM*.
 22-25. Species dubiæ.

1. *M. LAVANDULACEA* (Willd. Enum. 609), canescens, foliis sessilibus lanceolato-linearibus subintegerrimis utrinque cano-tomentosis, spica densa, calycibus albo-tomentosis.

M. lavandulæfolia. Pers. Syn. 2. p. 119.?

Hab. in Hispania Willdenow. (h. s. c.)

Caulis erectus, subramosus, tomento brevi candidus. Folia 1½-2-pollicaria, plerumque integerrima, rarius hinc inde dentata, basi subcordata, sæpius decurva, nervo medio valido, utrinque cano-tomentosa, floralia subulata verticillastos subæquantia. Spicæ subsolitariae, cylindraceæ, ante anthesin conicæ, demum basi interruptæ. Verticillastri multiflori, infimi distincti. Bractææ subulatae. Calyces pedicellique cano-tomentosi. Species foliorum forma distinctissima, sed nondum spontaneam vidi.

2. *M. INCANA* (Willd. Enum. 609), caule humili paniculato, foliis subsessilibus ovato-cordatis subdentatis utrinque cano-tomentosis, spicis numerosis abbreviatis, calycibus villosito-tomentosis.

M. spicata. Forsk. ! in herb. Vahl.

M. cretica. Hortul.

M. persica. Hortul.

Hab. in Græcia Sibthorp ! Persia ? Arabia ? Forsköhl ! (h. s. c. et v. s. sp. in herb. Sibth. et Vahl.)

Caules adscendentes vix semipedales, pubescentia brevi cano-tomentosi. Folia parva, lato-ovata, obtusa, margine integerrima vel hinc inde dentata, basi cordata, subamplexicaulia, utrinque præsertim ad paginam inferiorem cano-tomentosa, floralia infima subconformia, verticillastos paullo superantia, superiora lanceolata, acuta, floribus breviora. Spicæ vix pollicares, numerosæ, paniculatæ, basi foliosæ, juniores densæ, demum laxiores. Verticillastri 8-flori, approximati vel demum subremoti. Pedicelli bractea subulata subbreiores calycesque tomentoso-villosi. Calycis dentes tubo breviores. Corolla calyce duplo longior, extus pubescens.

3. *M. TOMENTOSA* (Durv. Mem. Soc. Linn. Par. 1. 323. non Borkh.), canescens, caule erecto vel adscendente elato, foliis sessilibus lanceolatis vel ovato-lanceolatis irregulariter serratis subreflexis plicatis undulato-crispis utrinque albo-tomentosis, spicis elongatis cylindraceis basi interruptis subpaniculatis, calycibus tomentoso-pubescentibus.

M. canescens. Sieb. ! Pl. Exs. non Roth.

M. cretica. Hortul.

Hab. in regione Mediterranea orientali : in Creta Sieber ! in Syria, in Græcia ad fontes insulæ Scyræ Durville. (h. s. c. et v. s. sp. in herb. Hooker.)

Caules 2-3-pedales, plerumque erecti, rarius basi procumbentes et adscendentes, tetragoni, tomentoso-pubescentes, apice paniculato-ramosi. Folia obtusiuscula, basi rotundata vel cordata, mollia et utrinque præsertim in paginam inferiorem molliter cano-tomentosa, floralia bractææformia, inferiora lanceolato-linearia, superiora subulata, verticillastro vix longiora. Spicæ plurimæ, 3-4-pollicares et longiores, graciles, per anthesin interruptæ, fructiferæ vix condensatæ. Verticillastri distincti, floribus numerosis parvis. Bractææ subulatae, exteriores calyce sublongiores. Calyces breviter pedicellati, campanulato-globosi. Corolla extus tenuissime pubescens. Stamina fertilia exserta, sterilia inclusa. Stylus exsertus. Species *M. sylvestri crispæ* (*M. undulatæ* Willd.) affinis, sed habitu, foliis angustioribus obtusiusculis, et spicis duplo triplove longioribus in speciminibus tam spontaneis quam cultis constanter distincta videtur.

4. *M. SALICINA* (Burch. Cat. Geogr. Pl. Afr. Austr. 1372), canescens, caule erecto, foliis petiolatis lanceolato-linearibus subintegerrimis supra glabriusculis subtus incanis, spicis cylindricis.

M. capensis. Thunb. Prod. Fl. Cap. 95?

Hab. ad Caput Bonæ Spei *Burchell!* (v. s. sp. in herb. *Burchell.*)

Exemplaria in herbario Burchelliano jam deflorata, sed foliis angustis a *M. Royleana* distinctissima, ab omnibus aliis *Menthis spicatis* foliis petiolatis differt. Folia magnitudine et forma foliis *M. lavandulaceæ* similia, sed supra fere glabra, subtus tenuiter albo-tomentosa.

5. *M. ROYLEANA* (Benth. in Wall. Pl. As. Rar. 1. 29), tota albo-tomentosa, foliis petiolatis ovato-oblongis inæqualiter serratis, spicis elongatis gracilibus basi interruptis.

Hab. in India Orientali: in Deyra Dhoon *Royle!* (h. s. sp. comm. a cl. *Royle et e Mus. Angl. Ind.*)

Habitu *M. sylvestri mollissimæ* affinis, sed candidior et foliis petiolatis spicisque elongatis interruptis distinctissima. Caulis erectus, ramosus, 1-2-pedalis, lana candida dense tomentosus. Folia obtuse serrata, basi rotundato-cuneata, supra pallida tenuiter tomentoso-pubescentia, subtus mollissime albo-tomentosa; floralia linearia, candidissima, floribus breviora. Verticillastri distincti, numerosi, parvi, globosi, inferiores remoti, superiores in spica gracili elongata approximati. Flores minuti, subsessiles. Bracteæ subulatæ. Calyx campanulatus, dense albo-tomentosus, dentibus latis obtusis. Corolla parva, albida? Stamina fertilia corollam subæquantia.

6. *M. SYLVESTRIS* (Linn.! Spec. 804), caule erecto, foliis subsessilibus ovato-lanceolatis oblongisve supra pubescentibus vel tomentosis subtus albo-tomentosis, spicis densis vel basi interruptis conico-cylindraceis, calycibus villosis tomentosis.

α mollissima, foliis utrinque molliter albo-tomentosis.

M. mollissima. *Borkh.*

M. incana. *Sole! Herb. Sm. in Rees Cycl. 23.*

M. canescens. *Roth. Catal. Bot. 2. 46.*

M. chalepensis. *Mill.! Dict. n. 10.*

β candicans, foliis utrinque brevissime cano-tomentosis.

M. candicans. *Crantz Stirp. Austr. 330.*

M. pallida. *Nees!*

γ glabrata, foliis supra glabriusculis subtus pubescentibus subincanis.

M. Rosani. *Ten. Fl. Nap. App. 5. 18. ex ejusd. Syll. Fl. Nap. 281.*

M. Eisenstadtiana. *Opiz ex Ten. Syll. Fl. Nap. 281.*

δ vulgaris, foliis supra pubescentibus subrugosis subtus molliter albo-tomentosis.

M. candicans. *Mill.! Dict.*

M. villosa. *Sole! Menth. Brit. t. 1. et 2.*

M. sylvestris α. *Sm.! Trans. Soc. Linn. Lond. 5. 179. Engl. Bot. 10. 686. male.*

M. gratissima. *Willd. Sp. 3. 75.*

M. niliaca. *Willd. Sp. 3. 76. et Hortul. non Vahl.*

M. longifolia. *Huds. Fl. Angl. 221.*

M. tomentosa. *Borkh.*

M. hybrida. *Schleich. Pl. Exs. cent. 1. n. 55?*

M. reflexifolia. *Opiz! in Bot. Zeit. 1824, 2. 525.*

M. suavis. *Hoffm.? ex Sm. in Rees Cycl. 23. non Guss.*

M. Wierzbeckiana. *Opiz in Bot. Zeit. 1824, 2. 525?*

M. Ratisbonensis. *Opiz in l. c.?*

M. oblonga. *Opiz in l. c.?*

ε nemorosa, foliis ovato-oblongis supra viridibus pubescentibus subtus laxè albo-tomentosis.

M. nemorosa. *Willd.! Spec. 3. 75.*

M. sylvestris. *Sole! Menth. Brit. t. 3. Œd. Fl. Dan. 3. t. 484.*

M. sylvestris δ. *Sm.! Engl. Fl. 3. 73.*

- M. rotundifolia.* *Sole Menth. Brit. t. 4. ? non Linn.*
M. niliaca. *Jacq. Hort. Vind. 3. 46. t. 87. * non Vahl.*
M. serotina. *Ten. ! Fl. Nap. t. 156. ex ejusd. Syll. Fl. Nap. 281.*
M. hirta Beck. *Fl. Franc. 220. ex Fresen. Syll. Pl. Soc. Ratisb. 229. et verosim. Willd.*
M. dumetorum. *Schult ? ex Reichb. Fl. Germ. Exc. 310.*
M. gratissima. *Wigg. Prim. Fl. Holsat. 43. ex Roth. Tent. Fl. Germ. 2. pars 2. 6.*
M. sapida. *Tausch ? ex Reichb. Fl. Germ. Exc. 310.*
M. Halleri. *Gmel. Fl. Bad. 2. 594. ? ex Reichb. Fl. Germ. Exc. 310.*

♂ caule divaricato-ramoso, spicis gracilibus interruptis, verticillastris paucifloris distinctis.

- M. urticæfolia.* *Ten. Fl. Nap. t. 157. ex ejusd. Syll. Fl. Nap. 283. ?*
M. origanoides. *Ten. Fl. Nap. Prod. App. 5. 19. ex ejusd. Syll. Fl. Nap. 284.*

η *crispa*, foliis undulato-crispis profunde dentatis subrugosis subtus molliter albo-tomentosis.

- M. undulata.* *Willd. Enum. 608. Nees ab Esenb. Pl. Med. ic.*
M. velutina. *Lejeune ?*
M. dulcissima. *Dumort. Florul. Belg. 48. ?*
M. crispa. *Ten. Fl. Nap. 2. 29. Riv. t. 50.*
M. serotina ? *Ten. Syll. Fl. Nap. 281.*
M. foliosa. *Opiz ex Fresen. Syll. Pl. Soc. Ratisb. 2. 226.*
M. tomentosa. *Hoppe et Hornsch. ex Reichb. Fl. Germ. Exc. 310.*
M. hybrida. *Schleich. ex Reichb. Fl. Germ. Exc. 310.*
M. Lamarckii. *Ten. Fl. Nap. Prod. App. 5. 19. et Syll. Fl. Nap. 282. excl. syn. Schrad. et seq.*

Hab. in Europa fere tota et in Asia boreali necnon ins. Canariensibus ad fossas et in udis vulgaris: α et β in Græcia *Sibthorp!* Dalmatia *Visiani!* in Hispania *Pavon!* in ins. Canariensibus! etiam in Anglia! et Germania! ubi raræ videntur; δ in ins. Britannicis! in Suecia meridionali *Fries*, Dania *Æder*, Germania omni! Lusitania *Brotero!* Gallia! Hispania *Pavon!* in Italia! etiam meridionali *Tenore*, in Sicilia *Gussone*, Græcia *Sibthorp!* Bulgaria *Durville!* in Rossia Europæa! in Tauria *Bieberstein*, in promontorio Caucasico et montibus *Beshtau C. A. Meyer*, in jugo Altaico *Ledebour!* in Sibiria ad regionem superiorem fluminis *Irtish Gmelin!* in ins. Teneriffa *Masson!* ad Caput Bonæ Spei *Burchell!* ε in Catalonia *Endress!* in Italia! et forsitan in Germania. In hortis cu mvarietatibus γ, ζ, et η frequenter occurrit et magnopere variat, hujusque varietatis formas vidi in herb. Lindleyano a *Macraeo* in Ceylona et in herb. Mus. Reg. Berolinensi in Brasilia a *Sello* et in herb. St. Hilariano ibidem lectas, sed verosimiliter non indigenas. (*h. s. et v. v. sp.*)

Species in Europa vulgaris et magnopere variabilis. A *M. rotundifolia* foliis longioribus acutioribus et canescentia; a *M. tomentosa* foliis latioribus plerumque planis et spicis brevioribus; a *M. incana* caule (exceptis ramis inferioribus autumnalibusve nonnullis) erecto distinguitur. Caulis subsimplex vel ramosus, 1-2-pedalis, nunc brevissime cano-tomentosus, sæpius pilis lanatis subreflexis tomentoso-villosus. Folia sessilia vel in ramis inferioribus autumnalibusve breviter petiolata, acuta vel raro obtusiuscula, margine plus minusve serrata, basi rotundata vel subcordato-amplexicaulia, supra pubescentia vel tomentosa vel interdum demum subglabrata, subtus constanter plus minusve albo-tomentosa vel lanata;

* Jacquin's figure certainly appears to represent this plant, although there is a specimen from him under this name in the Banksian herbarium of the true *M. niliaca* of Vahl, or common *M. viridis*.

floralia bractæformia, uti bractæ subulata, verticillastris floriferis breviora, ante anthesin subexserta. Spicæ plerumque sesquipollicares, densæ, obtusæ, in varietatibus nonnullis basi interruptæ. Calyces et pedicelli dense tomentoso-villosi. Corolla purpurascens, extus sæpissime pubescens. Stamina fertilia exserta, sterilia inclusa. Habitus uti forma foliorum in varietatibus α , β , γ , et δ eadem est, sed differunt villositate. In var. ϵ , quæ forsitan proles hortensis e specie sylvestri diversa orta, folia latiora, obtusiora, media inter *M. sylvestrem* et *M. rotundifoliam* et rugosiora sunt; lana etiam paginae inferioris laxior est, spicæque minus confertæ. Var. ζ est ejusdem forma, spicis magis interruptis gaudens; sed dubito an synonyma Tenorii recte huc citantur, plurimas enim species diversas sub hoc nomine a Tenorio ipso missas in herbaria vidi. Var. η est forma quasi monstruosa in hortis orta, et varietatibus *crispis* dictis cæterum specierum similis.

In horto Gottingensi sub nomine *M. pyramidalis* planta colitur quæ videtur *M. sylvestris* varietas, sed differt foliis latioribus glabrioribus et spicis elongatis gracilibus interruptis, verticillastris parvis paucifloris. A *M. pyramidalis* Ten. foliis sessilibus distinctissima. In herbario Hookeriano specimen asservatur ex Sardinia foliis breviter petiolatis basi lato-cordatis rugosis, et verticillastris omnibus remotis, verosimiliter hybridum. Specimina hispanica a Pavonio lecta mecum communicavit cl. Lambert, quibus caulis procumbens et folia oblonga petiolata; sed mihi videntur rami autumnales in loco sicco orti, et ideo potius ad statum monstruosum quam ad varietatem vel speciem propriam referendi. Cæterum in herbariis nonnullis specimina hybrida vidi inter *M. sylvestrem* et *M. arvensem*, *M. aquaticam*, etc.

7. *M. ROTUNDIFOLIA* (Linn.! Sp. 825), caule erecto, foliis sessilibus ovato-rotundatis crenatis rugosis supra pubescenti-hirtis subtus laxe albo-lanatis, spicis densis conico-cylindricis, calycibus hirtis.

M. rotundifolia. Sm.! *Engl. Bot.* 7. t. 446.

M. macrostachya. Ten.! *Fl. Nap.* 2. 30. t. 56. *Syll. Fl. Nap.* 282.

M. neglecta. Ten.! *Fl. Nap.* 2. 379. t. 157. f. 1. ex *Syll. Fl. Nap.* 282. jam ab auct. ipso huc relata.

M. fragrans. Presl. *Del. Prag.* 78. ex Guss. *Prod. Fl. Sic.* 2. 88.

M. rugosa. Lam. *Fl. Fr.* 2. 420. Roth. *Catal. Bot.* 2. 65. ex Fresen. *Syll. Pl. Soc. Ratisb.* 2. 230.

M. suaveolens. Ehrh. *Beitr.* 7. 149. ex Fresen. *Syll. Pl. Soc. Ratisb.* 2. 230.

Hab. in Europæ fere totius, Africæ Mediterraneæ et Sibiricæ ruderratis ad vias et fossas: in ins. Britannicis! Germania omni! Gallia! Hispania Pavon! Lusitania Martius! ins. Madera F. Masson! Tanger Broussonet! Italia! etiam meridionali Tenore! Sicilia Gussone! Græcia Sibthorp! ad flum. Irish Sibiricæ Gmelin, etiam in America boreali interdum ex hortis aufuga occurrit. (*h. s. et v. v. sp.*)

Caulis erectus, subramosus, 1-2-pedalis, apice ramis paucis paniculatus, pilis mollibus lanatis vestitus. Folia plerumque ovato-rotundata, rarius elliptica, obtusa, crenaturis obtusis vel rarius acuminatis, basi rotundato-cordata, constanter rugosa, lana paginae inferioris multo laxiore quam in *M. sylvestri*. Spicæ *M. sylvestris*, sed virides nec canescentes, et sæpius basi interruptæ. Pedicelli glabriusculi vel hirti. Calyces hirti. Corolla albida. Stamina fertilia exserta, sterilia inclusa.

8. *M. VIRIDIS* (Lin.! Sp. 804), caule erecto, foliis subsessilibus ovato-lanceolatis inæqualiter serratis cauleque glabris floralibus omnibus bractæformibus verticillastro sublongioribus calycibusque hirtis glabrisve, spicis cylindræis laxis, verticillastris approximatis vel infimis omnibusve distantibus.

M. viridis. Sole! *Menth. Brit.* t. 5. Nees v. Esenb. *Pl. Med. ic.* Sm.! *Engl. Bot.* 34. t. 2424. *Fl. Dan.* t. 1876.

M. verticillata. Feuill. *Pl. Chil.* 42. t. 28.

M. spicata. Crantz *Stirp. Austr.* 328.

M. ocimiodora. Opiz!

M. brevispicata. Lehm.! *Sem. Hort. Hamb.* 1828.

M. balsamea. Reichb. *Fl. Germ. exc.* 309.? non Willd.

June 1833.

A A

M. lævigata. Willd. Enum. 609.

M. niliaca. Vahl! Symb. 3. 75.

M. Pudina. Hamilt.—Benth. in Wall. Pl. As. Rar. 1. 29.

M. tenuis. Mich. Fl. Bor. Amer. 2. 2.

β angustifolia Lej.

M. tenuifolia. Opiz ex Reichb. Fl. Germ. Exc. 309.

M. Lejeunii. Opiz ex Reichb. l. c.

γ crispa.

M. crispata. Schrad.! Cat. Hort. Gott. Willd. Enum. 608. Nees v. Esenb. Plant. Off. ic.

M. hircynica. Röhl. Deutschl. Fl.

M. crispa. Roth. Tent. Fl. Germ. 1. 248. et 2. pars 2. 7? ex specim. hortens. non Linn.

M. cordifolia. Opiz ex Fresen. in Syll. Pl. Soc. Ratisb. 2. 232.

M. hortensis. Opiz ex Fresen. in Syll. Pl. Soc. Ratisb. 2. 227.

Hab. in Europæ temperatæ ruderatis: in Anglia *Smith!* in Scotia *Drummond!* in Gallia rarior; scil. in Alsatia *Requien!* Francofurti *Becker!* ad Treviso herb. *Martius!* in Bulgaria *Durville!* etiam in ins. Madera *F. Masson!* ad Caput Bonæ Spei *Burchell!* et hinc inde in America boreali! et meridionali! sed vix ibi spontanea videtur. (*h. s. et v. v. sp.*)

Statura, habitus, et forma foliorum ut in *M. sylvestri*, sed caule foliisque glaberrimis constanter distinguitur. Spicæ plerumque hirtæ, nec cano-pubescentes, interdum omnino glabræ. Exemplaria Boreali-Americana ab Europæanis non distincta videntur.

9. *M. PRATENSIS* (Sole! Menth. Brit. t. 17), foliis subsessilibus ovato-lanceolatis oblongisve serratis cauleque erecto glabris vel tenuissime pubescentibus floralibus subconformibus minoribus superioribus lato-lanceolatis verticillastro subduplo longioribus, verticillastris omnibus remotis globosis, pedicellis glabris, calycis campanulati dentibus hirsutis.

M. rubra. Huds. Angl. ex Fries. Nov. Fl. Suec. ed. 2. 179. non Sm.

M. gentilis. Sole! Menth. Brit. t. 15. Sm. Engl. Bot. 7. 449. non ejusd. in oper. post. nec Auct. aliorum.

M. gracilis γ. Sm.! Trans. Soc. Linn. Lond. 5. 210.*

β crispa.

M. dentata. Willd.! Spec. 3. 80.

M. ciliata. Opiz? ex Fresen. in Syll. Pl. Soc. Ratisb. 2. 240.

Hab. in Europa septentrionali? in Anglia ad fossas et in aquosis at vix spontanea *Sole!* in cultis Sueciæ quasi sponte *Fries.* (*h. s. c. et v. s. (sp.?) in herb. Sm. et Sole.*)

Species inter *Menthas sessilifolias* verticillastris remotis foliosis, inter *verticillatas* foliis sessilibus distinguitur; cæterum quasi media est inter *M. viridem* et *M. arvensem rubram*. Caulis erectus, firmus, substrictus, parum ramosus, ramis erectis brevibus virgatus, purpureo-ruber, glaber vel pilis brevissimis patentibus

* Besides the specimens of *M. gracilis γ*, there are three others of this plant in Sir J. Smith's herbarium; one sent by Mr. Crowe from Suffolk, on the same page as a *M. arvensis* from Mr. Pitchford (*M. sativa* Sm.); another marked *M. sativa* Sole, with a cultivated specimen of *M. rubra*; and the third from Mr. Sole, under his name of *pratensis*, also with a specimen of *M. rubra*; the whole marked *M. gracilis β*, but with a memorandum that there must have been some mistake in the ticket.

pubescens. Folia caulina fere *M. viridis*, firma, saturate viridia vel rubentia, supra glabra, subtus pallidiora, venis breviter pilosis, floralia gradatim minora, angustiora, sed basi proportionem latiora. Verticillastri densi, globosi. Bracteæ lanceolato-subulatae. Calyx florifer tubuloso-campanulatus, fructifer subgloboso-campanulatus, nunc fere glaber dentibus obsolete hirsutis, nunc dense pilis erectis strigoso-hirtus. Corolla purpurascens, extus glabra vel pubescens. Stamina etiam fertilia inclusa. Stylus exsertus.

The names of *rubra*, *gracilis*, and *gentilis*, having been given by different authors to so many different plants, I have preferred adopting a name which has never been misapplied by German and other continental botanists, who do not possess this plant.

10. *M. PYRAMIDALIS* (Ten. Fl. Nap. 2. 33. t. 35. male), molliter pubescens vel villosa, foliis petiolatis ovatis acutis serratis basi rotundatis subtus pallidis vel incanis floralibus parvis lanceolatis vel infimis caulinis subconformibus, verticillastris distinctis infimis remotis supremis cylindrico-spicatis.

M. suavis. Guss. ! *Pl. Rar.* 387. t. 66. optime.

M. pubescens. Willd. *Enum.* 608 ?

M. divaricata. Lag. ?

M. balsamea. Willd. *Enum.* 608 ? (ex descr. l. c.)

M. hirta. Willd. l. c. ex descr. in Link. *Enum.* 2. 105.

M. emarginata. Reichb. *Fl. Germ. exc.* 309. ?

M. Langii. Geiger. *Pharm. Bot.* 1232. et in Nees v. Esenb. *Pl. Med. ic.*

Hab. in Europa meridionali, in Gallia meridionali prope Avenionem *Requien* ! in Italia *Reichenbach*, *Tenore* ! in Sicilia *Gussone* ! (h. s. sp. comm. a cl. *Gussone*.)

Affinis *M. piperitæ*, a qua differt superficie molliter villosa et foliis subtus plus minusve canescentibus. Caulis basi sæpius procumbens, ramosus, ramis ascenduntibus vel rarius erectiusculis, pilis mollibus lanatis subreflexis præsertim in parte superiore villosus. Folia forma et magnitudine foliorum *M. piperitæ*, sed mollia, supra adpresse villosa, subtus tomentoso-villosa, floralium par infimum caulinis subconforme, superiora parva, lanceolato-subulata, verticillastros superantia. Spica interrupta, elongata. Verticillastri infimi cymæ utrinque pedunculatae, superiores subglobosæ, minores quam in *M. piperita*, supremi in spica approximati. Bracteæ subulatae, uti pedicelli et calyces tomentoso-villosæ. Corolla rubra, vix calycem excedens. Stamina in speciminibus suppetentibus etiam fertilia constanter inclusa. Stylus exsertus.

A specimen sent from Italy by Tenore, under the name of *M. urticæfolia*, which I saw in Schultes' herbarium at Munich, is scarcely distinguishable from *M. pyramidalis*.

Tenore's figure in the Flora Napolitana gives a very incorrect idea of the real aspect of the plant he has sent to various persons as *M. pyramidalis*; but Gussone's figure is excellent.

11. *M. PIPERITA* (Linn. ! Spec. 805*), foliis petiolatis ovato-oblongis acutis serratis basi rotundato-crenatis cauleque glabris, spicis laxis obtusis brevibus basi interruptis, pedicellis calycibusque basi glabris, dentibus hispidis.

M. piperita. Nees v. Esenb. *Pl. Med. ic.* Sm. ! *Engl. Bot.* 10. 687.

M. piperita officinalis. Sole ! *Menth. Brit.* t. 7.

M. piperita vulgaris. Sole ! *herb. sed vix ejusd.* *Menth. Brit.* t. 8.

M. glabrata. Vahl ! *Symb.* 3. 75.

M. Kahiriza. Forsk. ! *Fl. Æg. Ar.*

M. balsamea. Willd. *Enum.* 608 ? ex descr. in Link. *Enum.* Hort. Berol. 2. 105.

* In herbario Linneano specimina *M. aquaticæ* et *piperitæ* inter se confusa sunt.

β ? *subhirsuta*, foliis subtus ad nervos petiolisque hirsutis.

M. hirsuta δ . *Sm. ! herb.*

M. piperita sylvestris. *Sole ! Menth. Brit. t. 24.*

M. hirta. *Willd. Enum. 608 ?*

M. Pimentum. *Nees v. Esenb. ex descr. in Reichb. Fl. Germ. Exc. 309.*

Hab. in Europa septentrionali spontanea? et in Europa fere tota! *Ægypto ! Asia media ! India ! America boreali ! et meridionali !* culta et ex hortis aufuga quasi spontanea; β in Anglia ad lacum Saham comitatu Norfolk *Smith !* prope Bath *Sole. (h. s. c. an sp. ?)*

Caulis basi procumbens, adscendens, ramosus, subrubens, glaberrimus vel pilis rarissimis patentibus ciliatus. Petioli sæpius ciliati. Folia ovato-oblonga vel sublanceolata, basi rotundata, saturate viridia, in var. α utrinque glaberrima vel raro ad nervos subtus ciliata, in var. β ad nervos petiolosque hirsuta. Floralium par infimum caulinis subcōnforme, superiora parva, lanceolato-subulata, floribus breviora. Verticillastri pauci, laxi, superiores in spicam brevem oblongam obtusam rubescentem approximati, infimi remoti, cymis utrinque breviter pedunculatis. Bractæ subulatæ, exteriores calycem æquantēs. Pedicelli glaberrimi. Calyces tubulosi, purpurascētes, dentibus subulatis erectis. Corollæ glabræ. Stamina etiam fertilia mihi constanter inclusa occurrere.

12. *M. CITRATA* (Ehrh. ! Beitr. 7. 150), foliis petiolatis ovatis basi late rotundatis subcordatisve cauleque glabris vel petiolis ciliatis, verticillastris paucis in capitulum oblongum approximatis vel infimo laxo remoto, pedicellis calycibusque glabris.

M. nigricans. *Mill. ! Dict. n. 12.*

M. odorata. *Sole ! Menth. Brit. t. 9. Sm. ! Trans. Soc. Linn. Lond. 5. 192. Engl. Bot. 15. 1025.*

M. adpersa. *Mænench. Meth. 379. ex Willd. Sp. 3. 79.*

Hab. in Anglia : in aquosis comitatus Cheshire, in Cambria septentrionali et prope Bedford *Smith !* An vere spontanea? (*h. s. c.*)

Media inter *M. piperitam* et *M. aquaticam*, et æquo jure ut prioris varietas foliis latis et floribus subcapitatis, vel posterioris varietas glabra habenda; forsā utriusque hybrida hortensis. Specimina vere spontanea nondum vidi. In hortis botanicis sæpe colitur.

13. *M. AQUATICA* (Lin. ! Spec. 805), caule pilis reflexis hirsuto, foliis petiolatis ovatis serratis basi rotundatis subcordatisve utrinque hispidulis vel villosis floralibus infimis subconformibus supremis bractæformibus, verticillastris paucis omnibus vel 2-3 superioribus globoso-vel oblongo-capitatis supremo terminali infimis sæpe remotis, calycibus tubulosis pedicellisque villosis.

M. palustris. *Mill. Dict. n. 11.*

M. aquatica. *Sole ! Menth. Brit. t. 10. 11.*

M. hirsuta. *Sm. ! Tr. Soc. Linn. Lond. 5. 193. Engl. Bot. 7. 447.*

M. pedunculata. *Pers. Syn. 2. 119. Poir. Dict. Suppl. 3. 663.*

M. acutiserrata. *Opiz ex Fresen. in Syll. Pl. Soc. Ratisb. 2. 226.*

M. nigrescens. *Weihe ex eod. l. c.*

M. bugulæfolia. *Weihe ex eod. l. c.*

M. brachiata. *Weihe ex eod. l. c.*

M. aurita. *Weihe ex eod. l. c.*

M. origanoides. *Lej. Fl. Spa.*

M. pubescens. *Willd. Enum. 608. ? (an ad M. pyramidalem referenda ?)*

α *nemorosa* (Fries. Nov. Fl. Suec. ed. 2. 183), caulis pedunculorumque pilis brevibus reflexis, foliorum sparsis raris, calycum brevibus patentibus, verticillastris paucis omnibus globoso-capitatis vel infimo remoto.

M. capitata. Opiz!

M. intermedia. Host.! *Fl. Austr.* 2. 141. (*specimina parum villosiora.*)

M. purpurea. Host.! *Fl. Austr.* 2. 141. (*M. intermediæ simillima.*)

β *hirsuta* (Willd. Enum. 610), villosior, verticillastris ut in var. α , sed plerumque majoribus.

M. hirsuta. Linn. *Mant.* 81. Hook. *Fl. Lond.* 5. t. 166.

M. dubia. Vill.! *Fl. Delph.* 2. 358.

M. riparia. Schreb.!

M. Weiheana. Opiz!

M. nepetoides. Lej. *Fl. Spa.*?

M. dumetorum. Schult.?

Origanum vulgare. Fl. Dan. t. 638.

γ *crispa*, foliis crispato-plicatis lacero-dentatis brevius petiolatis, inflorescentia præcedentium.

M. crispa. Lin.! *Spec.* 805. Nees ab Esenb. *Pl. Med.* ic.

δ *subspicata*, villosa, verticillastris plurimis, supremis subspicatis inferioribus remotis, foliis floralibus fere omnibus caulinis conformibus.

M. hirsuta s. Sm.! *Engl. Fl.* 3. 79.

M. piperita γ . Sm.! *Engl. Fl.* 3. 77.

M. paludosa. Sole! *Menth. Brit.* t. 22.

M. palustris. Sole! *Menth. Brit.* t. 6. male.

M. rivalis. Sole! (*exemplaria nonnulla in herbario.*)

M. ballotæfolia. Opiz!

M. subspicata. Weihe.

Hab. in Europa et Asia Sibirica vulgatissima in aquosis ad fossas &c. et in omni fere terrarum orbe hinc inde occurrit verosimiliter ex Europa allata: α et β in ins. Britannicis! in Suecia *Fries*, in Gallia! in Lusitania *Brotero*, in Hispania! Germania! Italia! Sicilia! Græcia! Rossia! in Caucaso *Bieberstein*, *C. A. Meyer*, in Sibiria ab Irkutia usque ad Oceanum orientalem *Gmelin*, etiam in ins. Azoricis et Madera *F. Masson*! ad Caput Bonæ Spei! in Brasilia! America septentrionali! &c. (*h. s. et v. v. sp.*)

Species vulgatissima et valde variabilis, sed mihi inflorescentia et foliis constanter distincta videtur. Caulis sæpius erectus, ramosus, plus minusve villosus, ad angulos saltem nunquam glaber. Folia semper petiolata, supra pilis sparsis plus minusve hispidula, rarius subglabra, subtus villosiora, pallidiora, nunc cano-tomentosa. Verticillastri majusculi, globosi, laxi, plerumque 2-3 in capitulum globosum vel spicam brevem oblongam nec elongato-cylindricam approximati, extremus terminalis caule determinato, infimi vel plurimi inferiores remoti, cymis utrinque breviter pedunculatis. Folia floralia inferiora caulinis subconformia, suprema bractæformia, verticillastro breviora. Pedicelli calycesque hispidi. Bractæ lineari-subulatae. Dentes calycini subulati. Corollæ in exemplaribus masculis v. hermaphroditis majusculæ, staminibus exsertis; in foemineis seu castratis plerumque minores, staminibus inclusis, antherarum loculis cassis.

Var. α , quæ præsertim in umbrosis occurrit, nonnisi superficie glabriore, foliis plerumque majoribus, et floribus paucioribus sæpe minoribus, a vulgatissima var. β distinguitur; a *M. citrata* differt caulis angulis semper reflexo-hispidis et staminibus (dum fertilia sunt) exsertis. Var. γ est forma hortensis. Var. δ quasi media est inter var. β et *M. arvensis sativam*.

It is on account of the above-mentioned intermediate specimens of the var. δ , that the *M. arvensis sativa* has been by many authors referred to *M. aquatica*, but erroneously, as appears to me; for these intermediate specimens are very scarce compared to those of the common states of *M. aquatica* and *M. arvensis*. They are generally found growing with the *M. aquatica*, or with both *M. aquatica* and *M. arvensis*; but have never, to my knowledge, been gathered in places where the *M. arvensis* grows alone; and in the specimens themselves, however numerous may be the verticillasters, the upper one at least of the central branch is terminal, whereas in the *M. arvensis* the stem is constantly indeterminate. The habit of

these intermediate specimens is also generally that of the *M. aquatica*, and not of the *M. arvensis*. Besides, if really a regular and complete chain of intermediate states has ever been observed, it occurs so very seldom that I should be inclined to refer it to hybridity, which must easily take place between two species nearly allied, and both more or less diœcious.

14. *M. ARVENSIS* (Linn.), caule retrorsum piloso villosulo vel glabriusculo, foliis petiolatis ovatis oblongisve basi rotundatis cuneatis vel angustatis floralibus omnibus conformibus flores superantibus supremis substerilibus, verticillastris omnibus globosis multifloris remotis, bracteis lanceolato-subulatis calycem tubulosum campanulatumve subæquantibus.

M. sativa. Lin.! *Sp.* 805.

M. gentilis. Lin.! *Sp.* 805.

M. arvensis. Lin.! *Sp.* 806.

α *sativa*, calycibus subcylindricis pedicellisque hirsutis, foliis plus minusve villosis.

M. rivalis. Sole! *Menth. Brit.* t. 20.

M. sativa. Sm.! *Trans. Soc. Linn. Lond.* 5. 199. *Engl. Bot.* 7. t. 448.

M. hirsuta ζ *verticillata.* Sm.! *Engl. Fl.* 3. 79.

M. aquatica iii. *sativa.* Fresen. in *Syll. Pl. Soc. Ratisb.* 2. 235.

M. aquatica B. *verticillata.* Fries. *Nov. Fl. Suec. ed.* 2. 183.

M. verticillata. Mill.! *Dict. n.* 17. et *Auct. plur.*

M. acutifolia. Sm.! *Trans. Soc. Linn. Lond.* 5. 203. *Engl. Bot.* 34. t. 2415.

(*folia angustiora.*)

M. palustris. Mœnch. *Meth.* 380. ex Fries. l. c.

M. pilosa. Spr. *Pl. Min. Cogn. Pug.* 2. 69. ex Fries. l. c.

M. dubia. Schreb. non Vill.

M. crenata. Becker! *Fl. Franc.* 225.

M. villosa. Becker *Fl. Franc.* 223?

M. organifolia. Host.! *Fl. Austr.* 2. 142.

M. tortuosa. Host.! *Fl. Austr.* 2. 142.

M. maculata. Host.! *Fl. Austr.* 2. 143.

M. serotina. Host.! *Fl. Austr.* 2. 143.

M. nemorosa. Host. *Fl. Austr.* 2. 144.

M. longifolia. Host.! *Fl. Austr.* 2. 144.

M. latifolia. Host.! *Fl. Austr.* 2. 145.

M. elata. Host.! *Fl. Austr.* 2. 145.

M. carniolica. Host.! *Pl. Austr.* 2. 146. (*folia villosiora subtus albida sublanata.*)

M. viridula. Host.! *Fl. Austr.* 2. 147.

M. ovalifolia. Opiz!

M. Speckmoseriana. Opiz!

M. cœrulea. Opiz!

M. plicata. Opiz ex Reichb. *Fl. Germ. Exc.* 307.

M. arguta. Opiz ex Reichb. l. c.

M. Rothii. Nees v. Esenb. ex Reichb. l. c.

M. obtusata. Opiz ex Reichb. l. c.

M. melissæfolia. Lej. ex Reichb. l. c.

β calycibus subcylindricis villosis, pedicellis glabris, foliis villosissimis.

M. sativa. Sm.! *herb.* (*exemplaria Williamsiana.*)

γ calycibus subcylindricis villosis, pedicellis glabris, caule foliisque glabriusculis.

M. gentilis α , β . Sm.! *Trans. Soc. Linn. Lond.* 5. 208. (*exempl. nonnulla.*)

M. aquatica *suavifolia.* Fries. *Nov. Fl. Suec. ed.* 2. 184.

M. sativa. Beck.! *Fl. Franc.* 223.

M. nummularia. Schreb.! *Fl. Erl.*

M. badensis. Gmel.

M. nitida. Host.! *Fl. Austr.* 2. 143.

M. montana. Host.! *Fl. Austr.* 2. 145. (*pedicelli in specim. Hostiano glabri.*)

M. sylvatica. Host.! *Fl. Austr.* 2. 149. (*ex specim. Hostianis huc referenda, ex descr. vero ad var. α.*)

M. rotundata. Opiz in *Bot. Zeit.* 1824. 2. 525?

δ *rubra*, calycibus cylindricis pedicellis caule foliisque glabris rubentibus.

M. rubra. Sm.! *Trans. Soc. Linn. Lond.* 5. 205. *Engl. Bot.* 20. 1413.

ε calycibus campanulatis, pedicellis villosulis, caule foliisque villosis.

M. gentilis γ et *arvensis* β. *Herb. Sm.!* (*exemplaria nonnulla.*)

M. arvensis, *agrestis*, et *rivalis*. *Herb. Sole!* (*exemplaria plurima.*)

M. lamiifolia. Host.! *Fl. Austr.* 2. 144?

M. ocymoides. Host. *Fl. Austr.* 2. 148?

M. pumila. Host. *Fl. Austr.* 2. 150.

ζ *vulgaris*, calycibus campanulatis villosis, pedicellis glabris, caule foliisque villosis.

M. arvensis. Sole! *Menth. Brit. t.* 12. Sm.! *Trans. Soc. Lin. Lond.* 5. 213. *Engl. Bot.* 30. t. 2119. et *Auct. plur.*

M. agrestis. Sole! *Menth. Brit. t.* 14. Sm.! *Engl. Fl.* 3. 87. *Engl. Bot.* 30. t. 2120.

M. gentilis. Mill.! *Dict. n.* 15. et *Auct. plur. Germ.*

M. austriaca. Jacq.! *Fl. Austr.* 5. 14. t. 430. *All. Fl. Pedem.* 1. 18. t. 75. f. 2.

M. pilosa. Wallr.! *Ann. Bot.* 75.

M. palustris. Mæench. *Menth.* 380. ex Poir. *Dict. Suppl.* 3. 662.

M. melissæfolia. Host.! *Fl. Austr.* 2. 144.

M. suaveolens. Host.! *Fl. Austr.* 2. 146. (*ex exempl. Hostianis huc referenda, ex descr. ad var. α.*)

M. stachyoides. Host.! *Fl. Austr.* 2. 146. (*exempl. hujus et præcedentis villosiora.*)

M. multiflora. Host.! *Fl. Austr.* 2. 147.

M. tenuifolia. Host.! *Fl. Austr.* 2. 147.

M. carinthiaca. Host.! *Fl. Austr.* 2. 149.

M. divaricata. Host. *Fl. Austr.* 2. 150.

M. varians. Host.! *Fl. Austr.* 2. 150. (*ex descr. Hostiana ad var. ε referenda.*)

M. prostrata. Host.! *Fl. Austr.* 2. 151.

M. laxa. Host. *Fl. Austr.* 2. 151.

M. parviflora. Host. *Fl. Austr.* 2. 152.

M. polymorpha. Host. *Fl. Austr.* 2. 152.

M. diffusa. Lej. *Fl. Spa. ex Fresen. in Syll. Pl. Ratisb.* 2.

M. parvifolia. Opiz ex Fresen. l. c.

M. villosa. Beck. *Fl. Franc.*

M. procumbens. Thuill. *Fl. Par.* 288.

M. intermedia. Nees v. Esenb ex Reichb. *Fl. Germ. Exc.* 308.

M. dalmatica. Tausch. in *Syll. Pl. Soc. Ratisb.* 2. 349.

η calycibus campanulatis villosis, pedicellis glabris, caule foliisque glabriusculis.

M. gentilis. Sm.! *Tr. Soc. Linn. Lond.* 5. 208. *Engl. Bot.* 30. t. 2118.

M. gracilis. Sole! *Menth. Brit. t.* 16.

M. gracilis α. Sm.! *Trans. Soc. Linn. Lond.* 5. 210.

M. sativa. Sole! *Menth. Brit. t.* 21.

M. variegata. Sole! *Menth. Brit. t.* 19.

M. pulchella. Host.! *Fl. Austr.* 2. 148.

M. austriaca. Host.! *Fl. Austr.* 2. 150. non Jacq.

M. grata. Host.! *Fl. Austr.* 2. 152.

M. atrovirens. Host.! *Fl. Austr.* 2. 152.

M. resinosa. Opiz!

M. parviflora. Schulz ex Reichb. *Fl. Germ. Exc.* 307.

θ *glabra*, calycibus campanulatis pedicellis caule foliisque glaberrimis.

M. glabra. Sole! *Herb.*

M. præcox. *Sole! Menth. Brit. t. 13.*

M. rubra. *Herb. Smith! (exempl. Williamsianum.)*

M. gentilis. *Host.! Fl. Austr. 2. 141. et Auct. plur. Germ.*

crispa, foliis undulato-crispis lacero-dentatis, calycibus foliisque variis.

M. sativa. *Nees v. Esenb. Pl. Med. ic.*

M. crispa. *Auct. plur.*

Hab. in Europa et Asia media et boreali vulgatissima, in regione Mediterranea rarior; in sylvis umbrosis, ad fossas, in udis uliginosis aquaticisque: in ins. Britannicis! Suecia *Fries*, Dania! Gallia! Germania! in Rossia Europæa usque ad Petropolim! in Hispania! Italia! Sicilia! sed *M. aquatica* rarior videtur, in Græcia *Sibthorp*, prope Georgopolitanum Caucasii *Bieberstein*, prope thermas Constantino-montanas *C. A. Meyer*, in Altaico jugo *Ledebour*, in valle Cash-meriano *Royle!* (*h. s. et v. v. sp.*)

Species ultra omnes polymorpha; variat enim, 1°. Caule simplici vel plus minusve ramoso, rarius erecto, sæpius divaricato procumbente vel diffuso, nunc humili vix semipedali, nunc ramis elongatis 2-3-pedalibus, rarius in var. ♀ glabriusculo, in omnibus aliis pilis plus minusve villosis-hispido. 2°. Foliis ovatis, basi truncatis, ovato-oblongis, v. superioribus oblongo-ellipticis (at latiora sunt quam in *M. canadensi*) nunc rugosis villosissimis, vel in var. ♂ et ♀ glabris submembranaceis, omnibus petiolatis vel supremis sessilibus. 3°. Verticillastris magnis globosis (at minoribus quam in *M. aquatica*), vel parvis, densis vel laxis subfasciculatis, sæpius plantæ majorem partem occupantibus, nunc paucis versus extremitatem ramorum. 4°. Floribus subsessilibus vel pedicellis calycem æquantibus. 5°. Pedicellis glabris vel pilis reflexis plus minusve villosis. 6°. Calycibus globoso-campanulatis vel subcylindricis, plus minusve villosis, pilis inferioribus semper patulis, superioribus plerumque erectis, dentibus ovato-lanceolatis v. lanceolato-subulatis, semper acutis, rarius demum subbilabiatis. 7°. Corollis calycem vix excedentibus v. sæpius eo duplo longioribus. 8°. Staminibus exsertis v. sæpius inclusis (fertilibus v. sterilibus). A *M. aquatica* meo sensu constanter distincta caule indeterminato, verticillastris omnibus distinctis nec supremis capitatis v. spicatis, foliis floralibus omnibus caulinis conformibus verticillastros multo superantibus nec supremis bractæformibus verticillastro brevioribus. A *M. canadensi* foliis latioribus plerumque rugosioribus et pilorum directione, nempe caulinis reflexis foliorum paginæ superioris adpressis, inferioris patentibus, pedicellorum reflexis, calycinis erecto-patentibus.

Although I have thus gone even further than Fresenius, Fries, and others of the best writers on this difficult genus, and considered the whole of the petiolate verticillate European *Menthæ* as forming but one species, I am yet of opinion that there may have been originally three or four, of which the varieties α, β, γ, and δ, may be considered as the types; and that it is owing to the great variety of situations in which these plants are found, and probably a great facility in producing fertile hybrids, that those innumerable intermediate states have arisen, which render it impossible, in a large collection of specimens, to sort them with any tolerable accuracy even into so many varieties. The form of the calyx and hairiness of the pedicels appear to me to be as variable as any other characters, and the direction of the hairs to be constantly the same wherever they are present. It is true, that between the erect hairs of the upper part of the calyx and the reflexed ones of the pedicels there are some patent ones, which are to be found sometimes at the base of the calyx, sometimes at the apex of the pedicel; but these differences are scarcely perceptible, and can be of no importance. The cylindrical calyces of the first four varieties, and their campanulate form in the four succeeding ones, appears at first sight to form a better character, more particularly as in the latter case the teeth are usually shorter, and the corollas and heads of flowers much smaller: but I have so frequently observed the same differences arise from mere sexuality,—that is to say, that in the same variety when the stamina remain abortive, or shorter than the tube, the flower is smaller, and the calyx during maturation assumes the campanulate form, and the teeth dilate so as to appear shorter,—that I have been unable to distinguish the cases where these characters might perhaps separate the plants as species from those where they arise from other causes.

15. *M. CANADENSIS* (Linn.! Spec. 806), prostrata vel adscendens, glabriuscula vel dense patentim pilosa, foliis petiolatis oblongo-ellipticis utrinque longe angustatis floralibus conformibus supremis lanceolato-linearibus substerilibus, verticillastris omnibus globosis multifloris remotis, bracteis lanceolato-subulatis calycem tubuloso-campanulatum subæquantibus.

α villosa.

M. canadensis. Auct.

β glabrata.

M. borealis. Mich. Fl. Bor. Am. 2. 2.

Hab. in Americæ borealis montibus et ad rivulos et amnes vulgaris: ab ora occidentali *Douglas! Scouler! &c.* ad Canadam! et ad sinum Hudsonis *Michaux*, prope Novum Eboracum *Torrey!* et in Pennsylvania *Schweinitz!* etiam in Chinæ provincia Kianang *Sir G. Staunton!* (*h. s. sp.*)

Affinis varietatibus angustifoliis *M. arvensis*, sed foliis constanter angustioribus basi longe angustatis, habitu laxiore, et pilis dum exstant omnibus patentibus mollibus differt. Species parum variat nisi pilis in var. *α* præsertim ad caules et calyces numerosis densis, in var. *β* raris subnullis.

16. *M. LAPPONICA* (Wahlenb. Fl. Lapp. 161. t. 10), caule retrorsum scabro, foliis petiolatis oblongis serratis basi angustatis glabris floralibus conformibus, verticillastris omnibus remotis paucifloris, pedicellis glabris, calycibus asperis, dentibus obtusis.

Hab. in ripis subhumidis arenosis fluvii Kemensis Lapponiæ *Wahlenberg!* (*v. s. sp. in herb. Kunze.*)

Valde affinis est *M. canadensi glabrata*, et vix nisi verticillastris paucifloris calycibusque parvis dentibus obtusioribus distincta. Tota planta glabra et pallida, odore satis suavi fere *Melissæ*. Radix repens et perennis. Caulis obtusangulus, inanis, ut facile comprimitur, pallide viridis nulloque modo coloratus, glaber, sed retrorsum asper ob mucrones subtiles nudis oculis vix discernibiles; simplex nec unquam ramosus. Folia petiolata, oblongo-lanceolata, serrata, valde tenuia et mollia, glabra, et nonnisi inferne parum aspera, in pagina inferiore sublucida; eorumque paria longius a se invicem remota, tamen tam longa sunt ipsa folia ut internodia duplo superant. Verticillastri vix ultra decemflori, pedicelli ipsis floribus longiores, glaberrimi, lævissimi. Calyx asper, sine punctis resinosis evidentioribus. Corolla rosea, staminibus exsertis.

17. *M. LANCEOLATA*, caule pilis adpressis reflexis pubescente, foliis lanceolatis acutis serratis basi in petiolum angustatis supra asperatis subtus glabris floralibus omnibus conformibus supremis verticillastro duplo longioribus, verticillastris omnibus remotis multifloris, calycibus tubulosis adpresso-villosis, dentibus acutis.

Hab. in Ceylona *Macrae!* (*v. s. sp. in herb. Lindl.*)

Caulis erectus, subramosus, tetragonus. Folia crassiuscula, supra pilis minutis asperata, subtus glaberrima, glandulosa v. ad nervos pilis raris ciliata, inferiora 2-3-pollicaria, superiora gradatim minora, suprema vix pollicaria. Verticillastri in parte caulis superiore globosi, laxiusculi. Bractæ subulatæ, exteriores flores subæquantes. Pedicelli pilis reflexis. Calyces adpresso-villosi. Dentes calycini lanceolato-subulati. Corollæ lobus superior longior, breviter emarginatus, dentibus acutiusculis. Affinis *M. canadensi*, sed habitu, caule erecto, et pilis adpressis distincta.

18. *M. DAHURICA* (Fisch.! MSS.), caulo erecto subsimplici, foliis breviter petiolatis ovato-lanceolatis glaberrimis floralibus conformibus, verticillastris paucis remotis laxè globosis, calycibus tubulosis glabriusculis, dentibus obtusis.

June 1833.

B B

Lepechinia clinopodifolia. Willd. ! *Hort. Berol. sub no. 21.*

Horminum clinopodifolia. Pers. *Syn.* 2. 132.

Hab. in Dahuria. (v. s. sp. in herb. Lindl. et Mus. Reg. Berol.)

Caulis erectus, subsimplex, tetragonus, pilis reflexis brevissime pubescens. Folia breviter petiolata, ovato-lanceolata, obtusa, integerrima vel brevissime et remote serrata, utrinque glabra, floralia conformia. Verticillastri 1-2, globosi, laxi. Bractæ subulatæ, minutissimæ. Pedicelli breviter retrorsum pubescentes. Calyces glabriusculi, pubescentes, striati, 10-nerves, intus nudi, dentibus obtusis 2 inferioribus paullo latioribus. Corollæ tubus intus villosus, limbus quadrifidus lobo superiore emarginato. Species calycibus tubulosis, dentibus obtusis ab omnibus Europæanis distincta.

19. *M. MOLLIS*, caule ramosissimo volubili (?) piloso-lanato, foliis petiolatis ovato-subrotundis acutis subserratis supra pubescentibus subtus albo-tomentosis floralibus conformibus, verticillastris omnibus remotis globosis multifloris, calycibus albo-pilosis, fauce intus villosa.

Bysteropogon molle. Humb. et Kunth. ! *Nov. Gen. et Sp. Amer.* 2. 317.

Hab. in America æquinoctiali: "frequentissime in alta planitie montium prope Quito, Riobamba, Nuevo et Cuença" Peruviae Humboldt et Bonpland ! in Columbia prope Santa Fe de Bogota Gudot ! (v. s. sp. in herb. Mus. Par. et Mus. Soc. Hort. Lond.)

Rami superne albidii. Folia subpollicaria. Verticillastri 20-30-flori. Dentes calycini subulati. Corolla calyce vix longior, pubescens, "alba, limbo rubro-maculato" (Kunth). Stamina inclusa. Stylus exsertus. Achenia ovoidea, lævia, fusca, nitida.

20. *M. PULEGIUM* (Linn. ! *Spec.* 807), caule ramosissimo prostrato, foliis petiolatis ovatis, verticillastris omnibus remotis globosis multifloris, calycibus hispidis bilabiatis intus fauce villosis.

Pulegium vulgare. Mill. ! *Dict. n.* 1.

Pulegium erectum. Mill. ! *Dict. n.* 2.

Pulegium latifolium. Bauh. *Pin.* 222.

M. exigua. Linn. ! *Spec.* 806. Sm. *Ic. ined. t.* 38.

M. pulegium. Sole ! *Menth. t.* 23. Nees ab Esenb. *Pl. Med. ic.* Sm. ! *Engl. Bot.* 15. t. 1026.

M. simplex. Host. ! *Fl. Austr.* 2. 148.

β caulibus foliisque dense villosis.

M. tomentosa. Sm. in *Rees Cycl.*

M. tomentella. Hoffm. et Link. *Fl. Port.* 1. 73.

M. gibraltarica. Willd. *Enum.* 611.

M. pulegioides. Reichb. !

Pulegium tomentella. Presl. *Fl. Sic.* xxxvi.

Hab. in Europæ fere totius fossis humidis uliginosisque: in Anglia! Suecia, Dania! Gallia! Germania! Hispania! Lusitania Brotero, Sicilia Gussone, Italia! Græcia vulgatissima Sibthorp, Bulgaria Durville, prope Lenkoran in Caucaso C. A. Meyer, etiam circa Valparaíso in America meridionali Chamisso! Cuming! &c. β in Lusitania Brotero, Hispania! Gallia mediterranea prope Monspelium! in Sicilia rarius Gussone, regno Napolitano Tenore, Algeriæ Smith! Tauria meridionali Bieberstein, Teneriffæ Chamisso! &c. (h. s. et v. v. sp.)

Caules et folia in var. communi glabri vel tenuiter pubescentes, in var. β pilis mollibus sublanatis dense villosi. Folia floralia suprema sessilia, sæpius reflexa, verticillastro breviora vel paullo longiora, omnia parva, in var. α nervosa, in β rugosa.

21. *M. REQUIENI*, pusilla repens glaberrima, ramis filiformibus adscendentibus, foliis petiolatis orbiculatis, verticillastris laxè pauci-

floris, calycibus globoso-campanulatis glaberrimis subbilabiatis intus fauce villosis.

Thymus parviflorus. *Req. ! in Ann. Sc. Nat.*

Audibertia. *Benth. in Bot. Reg. ad calc. no. 1228. non no. 1469.*

Hab. in Corsica *Requien ! (h. s. sp. comm. a cl. Requien.)*

Caules basi diffusi, ramosissimi, repentes. Rami vix 2-pollicares. Folia longe petiolata, limbo orbiculato vix 2 lin. diametro, subintegerrimo. Flores in quoque verticillastro 2-6, pedicellis calyce longioribus. Corolla et odor *Menthæ Pulegii*, a qua habitu, sed nullo modo florum characteribus, differt.

Species dubiæ vel non satis notæ.

22. *M. GRAVEOLENS* (Presl. Fl. Sicul. xxxvi.).

Hab. in Sicilia *Presl.*

"*M. spicis paniculatis cylindricis floribus sessilibus, calycibus pubescentibus, bracteis lineari-setaceis calyce duplo longioribus, caule erecto ramoso tomentoso, foliis cordato-oblongis mucronatis remote serratis pubescentibus subtus cinereo-tomentosis.*"—*Presl. l. c.*

An ad *M. pyramidalem* referenda?

23. *M. ANGUSTIFOLIA* (Host. Fl. Austr. 2. 148).

Hab. in Austria: in agro Vindobonensi prope Weidlingau Purkersdorf locis humidis sylvaticis *Host.*

"*M. florum verticillis approximatis, foliis lineari-lanceolatis planis hirsutis, pedicellis hispidis, staminibus corolla brevioribus.*

"*Caulis erectus, humilis, purpurascens, setulis exasperatus, simplex vel ramosus. Folia angusta, supra medium denticulata, præsertim subtus hirsuta. Bracteæ lanceolatae, acutæ, ciliatæ. Pedicelli hispidi. Calyx campanulatus, hirtus; calycis dentes acutiusculi. Corolla purpurascens, externe pilosa; corollæ lacinia superior emarginata; faux pilis obsita. Stamina corolla breviora.*"—*Host. l. c.*

24. *M. NUMIDICA* (Poir. Dict. Suppl. 3. 662).

Hab. in Africa boreali: ad oras Barbariæ prope ruinas urbis antiquæ Tabarcaræ *Poiret.*

"*M. foliis lanceolatis subserratis glabris nervosis subtus punctatis, caule erecto ramosissimo, verticillis pedunculatis subcorymbosis.*

"*Characteribus sequentibus a M. Pulegio distincta. Caules erecti, glabri, sulcati, fere a basi ramosi, ramis patulis. Folia petiolata, lanceolata, acuta, plus minusve denticulata, utrinque glabra, pollicem longa, 3-4 lin. lata, subtus nervis prominentibus et tenuiter punctata, superiora et floralia breviora, angustiora. Flores rubescentes. Verticilli axillares, opposite pedunculati. Pedunculus utrinque glaber, brevissimus, corymbulum globosum ferens, pedicellis unifloris. Calyx fere glaber, profunde striatus, dentibus 5 acutis. Corolla pilosiuscula, calyce parum longior. Stamina exserta.*"—*Poir. l. c.*

An *Micromeria* species?

25. *M. JAVANICA* (Blume Bijdr. 826).

Hab. in Javæ locis humidis circa Buitenzorg et in uliginosis prope Tugu *Blume.*

"*M. floribus capitatis, foliis lanceolatis medio ad apicem distanter serratis utrinque puberulis, caule obverse hirsuto, staminibus exsertis.*

"*Maxime accedit ad M. acutifoliam.*"—*Blume l. c.* An *M. lanceolata* vel *M. arvensis* var.?

Species e genere excludendæ.

M. AURICULARIA Linn. = *Dysophylla auricularia*.

M. AUSTRALIS Br. = *Micromeria australis*.

M. BLANDA Wall. = *Elsholtzia blanda*.

- M. BLANDA* DC. = *Elsholtzia incisa*.
M. CANARIENSIS Lam. = *Bystropogon organifolium*.
M. CANARIENSIS Linn. = *Bystropogon canariense*.
M. CERVINA Linn. = *Preslia cervina*.
M. CORYMBOSA Lam. = *Bystropogon canariense*.
M. DIEMENICA Spreng. = *Micromeria gracilis*.
M. FÆTIDA Burm. = *Dysophylla auricularia*.
M. FRUTICOSA Roxb. = *Elsholtzia vel Pogostemon*.
M. GRACILIS Br. = *Micromeria gracilis*.
M. HYPTIFORMIS Lam. = *Hyptis verticillata*.
M. MYOSUROIDES Roth. = *Dysophylla myosuroides*.
M. OCYMOIDES Lam. = *Geniosporum prostratum*.^{*}
M. OVATA Cav. = *Elsholtzia cristata*.
M. PATRINI Pall. = *Elsholtzia cristata*.
M. PERILLOIDES Lam. = *Perilla ocymoides*.
M. PERILLOIDES Linn. = *Hyptis pectinata*?
M. PLUMOSA Linn. = *Bystropogon plumosum*.
M. PUMILA Grah. = *Dysophylla pumila*.
M. PUNCTATA Mœnch. = *Preslia cervina*.
M. QUADRIFOLIA Roxb. = *Dysophylla quadrifolia*.
M. QUADRIFOLIA Don. = *Dysophylla cruciata*.
M. QUATERNIFOLIA Roth. = *Dysophylla stellata*.
M. SATUREIOIDES Br. = *Micromeria satureioides*.
M. SECUNDA Roxb. = *Pogostemon plectranthoides*.
M. STELLATA Lour. = *Dysophylla verticillata*.
M. VERTICILLATA Don. = *Dysophylla pumila*.
M. VERTICILLATA Roxb. = *Dysophylla verticillata*.
M. ZEYLANICA Burm. = *Geniosporum prostratum*.

XXVI. LYCOPUS.

Lycopus. Linn. Gen. 15.

Calyx campanulatus, æqualis, 4-5-dentatus, fauce intus nuda. Corolla vix calycem excedens, campanulata, æqualis, 4-fida. Stamina superiora nulla vel 2 sterilia filiformia capitellata corolla breviora, inferiora 2 subexserta fertilia distantia. Antheræ biloculares, loculis parallelis subdistinctis. Stylus apice subæqualiter bifidus, stigmatibus minutis terminalibus. Achenia sicca, lævia, margine calloso incrassato, trigona, apice truncata, basi attenuata.—Herbæ paludosæ vel uliginosæ, foliis acute dentatis pinnatifidisve floralibus conformibus flores multo superantibus. Verticillastri densi, sæpius multiflori, axillares. Bracteæ interiores minutæ, exteriores interdum in verticillastris inferioribus calyces excedentes. Flores parvi, sessiles. Genus ab affini *Mentha* differt staminibus superioribus sterilibus vel nullis et acheniis incrassato-callosis.

This genus, though small in the number of species, is spread over the whole of Europe, Northern Asia, and North America, and one species has been found in New Holland.

CONSPECTUS SPECIERUM.

Calyx obtuse sub-4-dentatus.

Caulis elatus crassus. Folia longe acuminata

grosse dentata 2. *L. MACROPHYLLUS*.

^{*} Synonymon supra, p. 21, omissum.

- Caulis vix pedalis. Folia oblongo-elliptica breviter dentata 1. *L. VIRGINICUS*.
 Calyx acute 5-dentatus.
 Staminum superiorum rudimenta nulla.
 Folia sessilia 3. *L. OBTUSIFOLIUS*.
 Folia petiolata.
 Caulis elatus stolonibus nullis 4. *L. EUROPEUS*.
 Caulis humilis stolonifer 5. *L. RUBELLUS*.
 Staminum superiorum rudimenta filiformia.
 Achenia matura dentes calycinosa æquantia 7. *L. EXALTATUS*.
 Achenia matura tubo calycis breviora 6. *L. SINUATUS*.

1. *L. VIRGINICUS* (Linn. Spec. 30), glabriuscula, caule basi stolonifero, foliis oblongo-ellipticis utrinque angustatis remote dentatis, calycibus 4-dentatis, dentibus ovatis obtusis, staminum sterilium rudimentis nullis.

β pauciflorus.

L. uniflorus. Mich. Fl. Bor. Am. 1. 14.

L. pumilus. Vahl. Enum. 1. 211.

Hab. in America boreali: in humidis a Nova Anglia! ad Carolinam Michaux, prope Saint Louis et ad flumen Saskatchewan prope Cumberland House Fort Drummond! *β* ad lacus S. Joannis et Mistassins Michaux. (*h. s. sp.*)

Radix sæpe tuberosa, reptans. Caules basi sæpius stolones reptantes filiformes emittentes, erectiusculi, simplices vel ramosi, pedales vel ultra. Folia breviter petiolata, 1-2-pollicaria, dentibus brevibus, basi integerrima, utrinque glabra, subtus sæpe purpurascentia. Verticillastri parvi. Bracteæ brevissimæ. Calyx campanulatus, dentibus 4, vel rarius quinto minore adjecto, latis obtusiusculis tubo brevioribus. Corolla calyce paullo longior, tubo intus ad insertionem staminum villosa. Stamina 2 fertilia breviter exserta, sterilium vestigium nullum. Achenia dentes calycinosa æquantia, apice glandulosa. Species distinctissima, et etiam foliorum forma minus variabilis quam cæteræ hujus generis.

2. *L. MACROPHYLLUS*, caule erecto firmo obtuse tetragono, foliis petiolatis amplis ovatis longe acuminatis grosse sinuato-dentatis basi angustatis glabris, verticillastris multifloris, calycibus irregulariter 4-5-dentatis, dentibus ovatis obtusis, staminum rudimentis nullis? acheniis calycem æquantibus.

L. virginicus β quercifolius. Pursh. Fl. Amer. Sept. 1. 16.?

Hab. in America boreali occidentali: ad fretum Juan De Fuca Scouler! (*v. s. sp. in herb. Hooker.*)

Affinis *L. virginico*, et quasi intermedius inter hunc et *L. obtusifolium*. Caulis in specimine unico suppetente ultra pedalis crassus, obtuse tetragonus, sulcatus, et tenuiter pubescens. Folia 3-4-pollicaria, fere sesquipollicem lata, dentibus utrinque 3-4 profundis latis notata, utrinque glabra. Verticillastri densissimi, at breves. Bracteæ brevissimæ. Calyx *L. virginici*, sed dento quinto frequentius adjecto. Corollas male siccatas vix examinare potui, sed staminum sterilium nullum vestigium vidi. Achenia majora quam in *L. virginico*, apice glandulosa, calycem æquantia.

3. *L. OBTUSIFOLIUS* (Mich. ex Vahl. Enum. 1. 212?*), caule erecto firmo subsimplici, foliis sessilibus oblongo-ellipticis profunde serratis basi rotundato-angustatis, verticillastris multifloris, calycibus

* "*L. foliis lanceolatis remote obtuse serratis.*

"Caulis erectus, simplex, palmaris. Folia petiolata, vix semipollicaria, obtusa, glaberrima. Verticilli pauciflori."

irregulariter 5-dentatis, acheniis calyce vix brevioribus, staminum rudimentis subnullis.

Hab. in America boreali occidentali: in planitiibus secus Red River *Douglas*! ad flumen Saskatchewan prope Carlton House Fort *Drummond*! ad fretum Hudsonis *Michaux*? (v. s. sp. in herb. *Hooker*.)

Habitu *L. virginico* affinis, sed caulis firmior, ad axillas subnodosus, 1-2-pedalis. Folia sessiliora, minus angustata, dentibus brevibus acutis vel obtusiusculis utroque latere notata, utrinque glabra. Verticillastri densi. Flores majores quam in *L. virginico*. Bracteæ lanceolato-acutæ, exteriores vix calycem æquantes. Calycis dentes sæpissime 5, uno minore, lanceolato-acuti, tubo per anthesin longiores, post anthesin breviores. Corolla dentibus calycinis sublongior. Stamina fertilia subinclusa, sterilium rudimenta nulla vel brevissima? Achenia magna, apice valde glandulosa.

4. *L. EUROPÆUS* (Linn. Spec. 30), stolonibus nullis, caule erecto ramoso, foliis petiolatis ovato-oblongis sinuato-dentatis vel pinnatifidis, verticillastris multifloris, calycibus acute quinquedentatis, staminum sterilium rudimentis nullis, acheniis tubo calycis subbrevioribus.

L. aquaticus. *Mœnch. Meth.*

L. palustris. *Lam. Fl. Fr.* 2. 430. *ejusd. Illustr. Gen.* t. 18.

L. vulgaris. *Pers. Syn.* 1. 24.

L. europæus. *Sm. Engl. Bot.* t. 1105. *Fl. Dan.* t. 1081. *Svensh. Bot.* t. 262. *Curt. Fl. Lond.* v. 3. ic.

β *pubescens.*

γ *arguta.*

L. australis. *Br. Prod. Fl. Nov. Holl.* 1. 500.*

Hab. in Europæ totius et Asiæ borealis humidis aquosis: in Anglia! Scotia *Hooker*, Sueciæ provinciis meridionalibus *Wahlenberg*, Gallia! Germania! Lusitania *Brotero*, circa Tanger *Salzmann*! et Mogador *Broussonet*! in Sicilia *Gussone*! Italia a Pedemontio *Allioni*, ad regnum Napolitanum *Tenore*, Græcia circa Thyatiram et in agro Eliensi et Byzantino *Sibthorp*, Hungaria *Lang*! imperio Rossico a Petropoli *Sobolewski*, ad Tauriam! in promontorio Caucasico *Bieberstein*, et in Monte Beschtau *C. A. Meyer*, in omni Sibiria *Gmelin*, ad Astrachan *Prescott*! in jugo Altaico circa pagum Sagra *Ledebour*, β in Anglia! γ in China *Sir G. Staunton*! et in Nova Hollandia ad portum Jackson, ad oram meridionalem et in terra Diemenica *Brown*! (*h. s. et v. v. sp.*)

Caulis 1-3-pedalis, non stolonifer, acute tetragonus, glaber vel pubescens. Folia quoad magnitudinem et dentes valde variabilia, sæpius dentibus acutis profundis notata et ad basin subpinnatifida, lobis vel dentibus lanceolatis acutis, subtus pinnatim nervosa nervis elevatis, utrinque glaberrima vel in var. β pubescentia. Verticillastri densissimi. Bracteæ lineari-lanceolatæ vel subulatæ, exteriores sæpe calycibus longiores. Calycis tubus striatus, conicus; dentes æquales, lanceolato-subulati, rigidi, acutissimi, tubo longiores. Corollæ dentes calycinis æquantes, albidæ, dentibus obtusis subæqualibus, tubo intus ad insertionem staminum villosus. Stamina 2 exserta fertilia, sterilium vestigium nullum. Achenia lævia, eglandulosa, tubo calycis breviora vel vix æqualia.

Var. β differt caulibus obtusioribus foliisque valde nervosis utrinque pubescentibus, et dentibus calycinis parum longioribus. Var. γ nonnisi foliis acutius dentatis et dentibus calycinis bracteisque longioribus acutioribus distinguitur.

5. *L. RUBELLUS* (Mœnch. Suppl. 446. ex Wenderoth in Syll. Pl.

* "*L. foliis lanceolatis acuminatis serratis pubescentibus supra scabriusculis subtus glandulosis basi attenuatis integris serraturis remotis æqualibus acutissimis, caulibus striatis.*

"Quam maxime affinis *L. europæo*."—*Br. l. c.*

Soc. Ratisb. 1. 88.), stolonibus reptantibus, caule erectiusculo humili pubescente, foliis petiolatis ovatis basi angustatis profunde dentatis pubescentibus, calycibus 5-dentatis, dentibus lanceolatis acutis, staminum steriliū rudimentis nullis.

Hab. in America boreali: in Virginia *Wenderoth*. (*h. s. c. ex Hort. Reg. Berol.*)

A *L. europæo* differt stolonibus longissimis foliosis, caule humili vix semi-pedali.

6. *L. SINUATUS* (Elliott Bot. S. Carol. et Georg. 1. 187), caule erecto acute tetragono glabriusculo, foliis petiolatis oblongo-lanceolatis utrinque angustatis infimis pinnatifidis mediis sinuato-dentatis supremis linearibus subintegerrimis, verticillastris multifloris, calycibus quinquedentatis acutis, staminum steriliū rudimentis capitatis, acheniis tubo calycis brevioribus.

L. europæus. *Pursh. Fl. Amer. Sept.* 1. 16. *Mich. Fl. Bor. Amer.* 1. 14. non Linn.

L. bracteatus. *Mühlenb. ex Link. Jahrb.* 1. 3. p. 55.*

L. americanus. *Mühlenb. ex Barton Fl. Philad.* 1. 12.

α *dissectus*, foliis plerumque pinnatifidis.

L. exaltatus. *Elliott Bot. S. Carol. et Georg.* non Linn.

L. heterophyllus. *Rafin. Med. Fl.* 2. 28.

β *vulgaris*, foliis plerumque sinuatis.

L. sinuatus. *Elliott Bot. S. Carol. et Georg.* 1. 187.

L. vulgaris. *Nutt. Gen. N. Amer. Pl.* 1. 15.

γ *angustifolius*, foliis plerumque linearibus subintegerrimis.

L. angustifolius. *Nutt. Gen. N. Amer. Pl.* 1. 15.

L. longifolius. *Rafin. Med. Fl.* 2. 28.

L. pennsylvanicus. *Mühlenb. ex Raf. l. c.?*

L. pauciflorus. *Rafin. l. c.?*

Hab. in Americæ borealis aquosis vulgaris: a flumine Saskatchewan ad Canadam *Drummond!* ad fretum Juan de Fuca *Scouler!* a Canada ad Virginiam *Pursh*, in civitatem Ohio et ad Louisville *Drummond!* in civitatibus australibus *Elliott*; var. α præcipue in regione boreali, β in media, γ in australiore. (*h. s. sp.*)

Stolones nunquam vidi. Caulis erectus, 1-2-pedalis, sæpius tenuior quam in *L. europæo*, glaber, acute tetragonus. Folia maxime variabilia; inferiora fere semper basi pinnatisecta apice minus profunde dentata; media sinuato-dentata, longe in petiolum angustata, dentibus segmentisve lanceolatis linearibusve, versus apicem foliis tendentibus; superiora et interdum fere omnia anguste lanceolata, integerrima vel remote dentata, basi in petiolum brevem angustata, omnia glaberrima. Verticillastri, calyces, corollæ, et stamina *L. exaltati*, a quo differt statura multo minore, foliorum superiorum forma, et acheniis tubo calycis brevioribus.

7. *L. EXALTATUS* (Linn. Fil. Suppl. 87.), caule erecto ramoso elato, foliis petiolatis ovato-oblongis pinnatifidis, verticillastris multifloris, calycibus acute quinquedentatis, staminum steriliū rudimentis capitatis, acheniis dentes calycinos subæquantibus.

* "*L. foliis oblongo-lanceolatis acuminatis attenuatis serratis glabris, verticillis sessilibus, bracteis linearibus acutis reflexis.*"—*Link. l. c.*

L. pinnatifidus. *Poll. Fl. Ross.* 2. t. 1.

L. exaltatus. *Sibth. et Sm. Fl. Græc.* 1. 9. t. 12. *an Sabbat. Hort. Rom.* 3. t. 64. *non Auct. plur. recent.*

Hab. in Europæ orientalis et Asiæ mediæ humidis: in Hungaria prope Posonem *Fenzl*! in Rossia meridionali prope Astrachan *Prescott*! in Tauria *Bieberstein*, in promontorio Caucasico et monte Beschtau *C. A. Meyer*, in jugo Altaico ad flumen Irtysh circa Semi-palatinsk *Ledebour*! in jugo Himalayano in monte Choor et Kidarkonta *Royle*! citatur etiam circa Lupadium Bithyniæ *Sibthorp*, in Italiæ agro Veronensi et Vicentino *Reichenbach*, in Pedemontio *Bellardi*, Ravennæ *Bertoloni*, circa Romam *Sebastiani et Mauri*, in regno Napolitano prope Fusaro *Tenore*, in Gallia meridionali ad Sorrèze *De Candolle*, et prope Saint Bèat *Lapeyrouse*, sed verosimiliter cum varietatibus elatioribus *L. europæi* a plerisque confusus. (*h. s. sp. comm. a cl. Prescott, Fenzl, et Royle.*)

Caulis sæpe 4-pedalis et ultra, acute tetragonus, glaber vel pubescens. Folia magnitudine variabilia, at constanter profunde pinnatifida vel pinnatisecta, segmentis lanceolatis acutis vel obtusis integerrimis dentatis vel rarius pinnatifidis, subtus nervosa, basi in petiolum angustata, utrinque glaberrima vel in var. β pubescentia. Verticillastri densissimi, at minores quam in *L. europæo*. Bractæ lanceolato-subulatae, rigidae, exteriores calycem subsuperantes. Calyx campanulatus, dentibus æqualibus lanceolato-subulatis acutis rigidis tubo subbrevioribus. Corolla minor quam in *L. europæo*, tubo intus subglabro. Stamina 2 fertilia subexserta, 2 sterili rudimenta subulata, capitata, corolla breviora. Achenia lævia, apice subglandulosa, dentibus calycinis paullo breviora.

Species e genere excludenda.

L. DIANTHERA. *Hamilt.* Melissa? Nepalensis.

XXVII. MERIANDRA.

Meriandra. *Benth. in Bot. Reg.* 15 ad calc. n. 1282.

Calyx ovatus, bilabiatus, labio superiore concavo integro vel brevissime 3-dentato, inferiore bifido, intus fauce nuda. Corolla tubo calycem æquante, limbo subæquali 4-fido, lobis planis, superiore integro vel emarginato. Stamina fertilia sæpius 2 (inferiora) erecta distantia, superiora abortiva vel rarius uno alterove fertili inferioribus conformia. Antheræ biloculares, loculis disjunctis stipitatis æqualibus pendulis, connectivo lineari brevi ad medium cum filamento articulado utrinque erecto. Stylus apice subæqualiter bifidus.—Frutices, floribus racemosis vel spicato-paniculatis.

Two East Indian species, both of them allied to *Salvia* in habit and in the structure of the anthers; but the form of the corolla and direction of the stamina are as in *Menthoideæ*, and the *M. strobilifera* is not unlike an *Elsholtzia* in habit. They are closely allied to *Audibertia*; thus connecting the *Menthoideæ* with the *Monardeæ*.

1. *M. STROBILIFERA* (*Benth. in Wall. Pl. As. Rar.* 1. 29), ramis dense floccoso-tomentosis, verticillastris spicatis inferioribus subremotis, foliis floralibus bractæformibus ovato-lanceolatis quadrifariam spicatis.

Hab. in India orientali : in montibus provinciæ Sirmore Wallich ! in jugo Himalayense ad Syen et infra Simlah Royle ! (*h. s. sp. comm. a cl. Royle et s. c. e Mus. Angl. Ind.*)

Frutex 2-3-pedalis et ultra. Folia breviter petiolata, oblongo-lanceolata, 2-4-pollicaria, obtusa, crenulata, basi hastato-sagittata, rugosissima, supra villosula, subtus laxè lanata, floralia sessilia, integerrima, verticillastro parum longiora. Spicæ versus apicem caulis plures, 2-4-pollicares, densæ vel basi subinterruptæ, æquales. Verticillastri 10-20-flori, densi. Bractææ minutæ. Flores magnitudine florum *Elsholtziæ blandæ*. Calyces basi attenuati, subincurvi, extus dense lanati, fructiferi aucti, dense imbricati, labio superiore integro, inferiore bifido, dimidio brevior. Stamina 2 vix exserta. Achenia parva, oblonga. "Odor totius plantæ fortis ingratus" (*Wall.*).

2. *M. BENGALENSIS* (Benth. in Wall. Pl. As. Rar. 1. 29), caule glabriusculo, ramis canescentibus, verticillastris remotis racemoso-paniculatis.

Salvia bengalensis. Roxb. ! *Fl. Ind.* 1. 146.

Salvia dianthera. Roth. *Nov. Spec. Pl.* 18.

Hab. in India Orientali : in Bengala et Coromandeliam ? Roxburgh, in hortis Indicis sæpissime colitur, ubi pro *Salvia officinali* utitur Wallich ! Royle ! Wight ! &c. (*h. s. c. e Mus. Angl. Ind.*)

Frutex divaricatus, basi crassitiæ brachii humani, cortice rimoso. Folia fere *Salviæ officinalis*, 2-3-pollicaria, petiolata, oblongo-lanceolata, obtusa, crenulata, basi truncata vel rotundata, supra elevato-subtus reticulato-rugosa, utrinque canescentia vel supra viridia; floralia parva, sessilia, suprema verticillastro breviora. Racemi plurimi, semipedales. Verticillastri laxi, multiflori, globosi, per anthesin semipollicem, fructiferi fere pollicem diametro. Bractææ minutæ. Calyces pedicellati, molliter villosi, subrecti, labiis longitudine subæqualibus, superiora brevissime tridentato, dentibus uti lobi labii inferioris lanceolatis acutis. Flores magnitudine florum *Thymi serpylli* vel *vulgaris*. Stamina exserta 2, rarius 3 vel 4. Styli lobi dilatati, acuti. "Foliorum sapor et odor fortiores quam in *Salvia officinali*" (*Roxb.*). "Odor totius plantæ attritu valde camphoratus" (*Wall.*).

TRIBUS III. MONARDEÆ.

COROLLA bilabiata. Stamina fertilia 2 (inferiora) adscendentia. Antheræ lineares, nunc loculis contiguis oppositis confluentibus connatæ, nunc dimidiatæ, liberæ vel postice connatæ, connectivo lineari in filamentum articulado apice loculum fertilem ferente, postice truncato vel sæpius producto filiformi clavato vel loculum alterum nunc difformem cassum nunc fertilem ferente.

XXVIII. SALVIA.

Salvia. Linn.

Horminum, Sclarea, et Æthiopis. Tournefort et Auct. vet.

Schraderia et Jungia. Mærch.

Stenarrhena. Don Prod. Fl. Nep.

Leonia. Llave et Lexarza.

Calyx ovatus, tubulosus vel campanulatus, bilabiatus; labio superiore integro vel tridentato, inferiore bifido, fauce intus nuda. Corolla tubo incluso vel exserto, æquali ventricosus vel ampliato, intus nunc piloso-annulatus, nunc nudo vel ad basin in latere inferiore processibus vel dentibus 2 instructo; limbo bilabiato; labio superiore erecto vel rarius patente, recto vel falcato, integro vel breviter emarginato, inferiore patente, brevior vel longior, lobis lateralibus oblongis vel rotundatis, patentibus reflexis vel contorto-erectis, medio plerumque latiore, integro vel emarginato. Staminum superiorum rudimenta nulla, vel parva claviformia; fertilia (inferiora) 2 prope faucem tubi inserta, filamenta breviora, subhorizontalia vel rarius erecta, apice cum anthera articulata et supra articulationem plerumque breviter producta, rarissime subcontinua. Antheræ dimidiatæ. Connectiva elongata, linearia, transverse cum filamentis articulata, antice sub labio superiore corollæ adscendentia et apice loculum fertilem linearem adnatum vel versatilem ferentia, postice deflexa vel erecta nunc loculum alterum subconformem minorem polliniferum vel difformem cassum ferentia, nunc dilatata vel rarius brevissima acuta, libera vel sæpius variis modis inter se connexa vel connata. Ovarii discus antice glandulifer, glandula lobis subæquali. Stylus adscendens, apice bifidus, lobis nunc subulatis æqualibus vel superiore longior, nunc inferiore vel utroque rotundato dilatato complanato. Stigmata plerumque minuta, terminalia, vel in maiore parte lorum styli decurrentia. Achenia ovoideo-triquetra, sicca, glabra, plerumque lævissima.

Of this numerous genus some representative may be found over nearly the whole world, but several of its sections are peculiar to different parts. Thus *Eusphace*, *Drymosphace*, *Horminum*, *Æthiopis*, and *Hemisphace*, belong to the Mediterranean region; some few only of the *Drymosphaces* and *Æthiopides* extending to the eastward as far as the mountains of Cashmere and the Himalaya. The *Plethiosphaces* are chiefly European, North Asiatic, and North African; two or three

species extending also down the coast as far as the Cape of Good Hope. The *Hymenosphaces* are about equally divided between the Mediterranean region and the Cape of Good Hope, one species belonging exclusively to the Canary Islands. *Notiosphace* contains one South Asiatic and Australian and one North African species, and *Gymnosphace* one Indian one; *Microsphace*, *Calosphace*, *Echinosphace*, and *Pycnosphace*, are exclusively American — the two latter confined to California; and *Heterosphace*, although a very natural section, is to be met with in the Mediterranean region, at the Cape, in Japan, and in North America.

The form of the corolla in *Salvia* is more that of the *Nepetoideæ* than of the *Monardeæ*; but the structure of the stamina has induced me to place it in the latter tribe, with which it becomes intimately connected through the medium of *Audibertia* and *Rosmarinus*. It is, on the other hand, linked on to the *Menthoideæ* by the intermediate genus *Meriandra*; and these four genera, or at least *Meriandra*, *Salvia*, and *Audibertia*, stand alone in the whole order of *Labiata* by the peculiar construction of their anthers.

The division of the genus into groups, as well as the extrication of the confused synonymy of many of the species, is a matter of peculiar difficulty. It has been usual to make use of the form of the leaves, and of the consideration of the upper lip of the calyx being entire or tridentate, for sectional characters; but the structure of the anthers has appeared to me to afford distinctions more consonant with the general habit. In my first three tribes (readily distinguished from one another by the calyx), the lower ends of the connectiva are curved upwards, and bear nearly perfect cells; differing, however, in form and size from the fertile cells at the other extremity, and usually touching one another, or connected together; and in these tribes the species, not being very common, are not subject to much variation. The three next, *Horminum*, *Æthiopis*, and *Plethiosphace*, are very distinct, as a whole, by their anthers, of which the lower ends are directed downwards (being always lower than the point of insertion of the filaments), and are dilated into an irregular rhomboidal appendage (usually called a gland, but which is in fact the abortive cell), and connected by a thick point at their extremity. Each of these three sections is itself natural, but the characters (derived from the calyx) which separate them are not so marked as could be wished; and the distinction of species with any degree of exactness is almost impossible. The *Plethiosphaces*, in particular, are many of them so common in so great a variety of soils; have been so much cultivated in botanical gardens, where they grow up as weeds with every facility for sporting; and have been so frequently described by local botanists and gardeners possessing imperfect materials and but little botanical experience, that half the names with which the synonymy is loaded must remain so many puzzles; and the more so, as, when specimens are preserved, it is often but a branch of the panicle with a leaf — thus giving no idea of the general habit of the plant. In *Microsphace* and *Calosphace* the lower ends of the connectiva also point downwards; but, instead of being connected by the end of a sort of abortive cell, there is no trace of that organ, and the connectiva are slightly dilated

and joined together for a considerable part of their length. *Microsphace*, containing perhaps only one species, appeared to me well distinguished both in habit and in the remarkable form of the style; but since I have seen the specimens I have described as *S. obscura*, I am doubtful whether it ought not to be united to *Calosphace*. In the latter section the chief difficulty lies in the large number of species. I have endeavoured to separate them into groups by their inflorescence and the form of the corolla; but the latter character is so difficult to observe correctly, and is so often wanting in dried specimens, that I fear many of my species may be found to be improperly placed. In *Echinosphace*, *Pycnosphace*, *Heterosphace*, and *Notiosphace*, the lower ends of the connectiva are turned upwards, as in *Eusphace*, &c.; but the cells they bear at their extremities only differ from their anterior cells by their smaller size, and are always to be found on opposite sides of the corolla, instead of being approximate or connected together. Each of these tribes is very distinct both in habit and character, and is composed but of a few well-characterised species. In *Gymnosphace* and *Hemisphace* the lower ends of the connectiva are reduced almost to a tooth, like that observable on the filaments of *Rosmarinus*; and I cannot discover any articulation between the connectivum and the anther. Were it not, therefore, for their intimate connexion with *Salvia* in other respects, I should consider the four or five species forming these two sections as a distinct genus, intermediate between *Salvia* and *Rosmarinus*, in which it would remain doubtful whether the support of the fertile cell of the anther consists of a filament bearing an elongated connectivum, as in *Salvia*, or is merely a filament with a tooth, as in *Ocimum* or *Phlomis*. Of the latter supposition, a comparison with *Monardeæ* might suggest the probability, at least in the case of *Rosmarinus*.

It is a matter of great regret to me that I have been unable to visit the collections of Paris since I have been studying the present genus, and that I am therefore obliged to rely upon the descriptions of authors for the affinities of so many species of which the original specimens are there preserved, and thus leave a far greater proportion of doubtful ones than in the other genera.

CONSPECTUS SECTIONUM.

Connectiva postice connexa connata vel approximata.

Connectiva postice porrecta vel adscendentia sub-antherifera. Corollæ tubus intus annulatus, labii inferioris lobi patentes.

Calyx subæqualiter 4-5-dentatus.

Calycis fructiferi dentes acuti vix aucti . . . I. EUSPHACE.

Calycis fructiferi dentes membranaceo-dilatati venosi . . . II. HYMENOSPHERE.

Calycis labium superius truncatum subtridentatum, inferius bifidum . . . III. DRYMOSPHERE.

Connectiva postice deflexa. Corollæ tubus exannulatus.

Connectiva postice abrupte dilatata extremitate callosa connexa. Corollæ labii inferioris lobi laterales erecti obliqui subtoriti.

- Calyx tubulosus, labio superiore truncato tridentato IV. HORMINUM.
 Calyx campanulatus, labii superioris tridentati dente medio brevior. Panicula divaricato-ramosa V. ÆTHIOPIS.
 Calyx ovatus, labii superioris dentibus 3 minimis conniventibus. Racemi simplices vel virgato-ramosi VI. PLETHIOSPHACE.
 Connectiva postice linearia longitudinaliter connata. Corollæ labii inferioris lobi laterales patentēs.
 Styli lobus inferior complanato-dilatatus rotundatus VII. MICROSPHACE.
 Styli lobi utrinque subulati VIII. CALOSPHACE.
 Corollæ tubus longe exsertus VIII. § 7. LONGIFLORÆ.
 Corollæ albidæ. *a Albidæ.*
 Corollæ flavescentes vel aurantiacæ. *b Aurantiacæ.*
 Corollæ coccineæ vel rubro-purpureæ. *c Coccineæ.*
 Corollæ cœruleæ vel violacæ. *d Cœruleæ.*
 Corollæ tubus inclusus vel calyce vix dimidio longior.
 Corollæ 4-lineares vel longiores.
 Folia floralia calyce plerumque breviora decidua vel reflexa.
 Calyx dense tomentoso-lanatus VIII. § 6. ERIANTHÆ.
 Calyx glaber villosus vel cano-tomentosus VIII. § 2. BRACHYANTHÆ.
 Folia petiolata vel si subsessilia basi angustata.
 Folia linearia lanceolata vel oblongo-lanceolata. *a Angustifoliæ.*
 Folia ovata vel rotundata basi non cordata. *b Ovatifoliæ.*
 Folia basi cordata. *c Cordifoliæ.*
 Folia subsessilia basi rotundata vel cordata. *d Sessilifoliæ.*
 Folia floralia magna persistentia flores amplectentia vel foliis caulinis conformia.
 Folia floralia bractæformia.
 Folia floralia dilatata membranacea patentia VIII. § 4. MEMBRANACEÆ.
 Folia floralia foliacea flores amplectentia VIII. § 5. BRACTEATÆ.
 Folia floralia caulinis conformia VIII. § 3. AXILLIFLORÆ.
 Corollæ vix 3-lineares VIII. § 1. MICRANTHÆ.
 Connectiva postice remota.
 Connectiva postice porrecta antherifera.
 Folia floralia et bractæ persistentes imbricatæ.
 Folia et bractæ spinosæ IX. ECHINOSPHACE.
 Folia et bractæ muticæ X. PYCNOSPHACE.
 Folia floralia decidua. Bractæ minutæ.
 Calycis labium superius integrum vel dentibus minimis conniventibus XII. NOTIOSPHACE.
 Calycis labium superius truncatum tridentatum XI. HETEROSPHACE.
 Connectiva postice deflexa acuta subulata.
 Calycis labium superius integrum XIII. GYMNOSPHACE.
 Calycis labium superius tridentatum XIV. HEMISPHACE.

CONSPECTUS SPECIERUM.

SECT. I. EUSPHACE. *Calycis labium superius tridentatum, dentibus omnibus acutis maturatione vix auctis. Corollæ tubus intus annulatus, labium superius erectum, inferioris lobi laterales reflexo-patentes. Connectiva postice porrecta loculum difformem cassum vel rarius polliniferum etsi minorem ferentia, extremitate plerumque connexa.*

Folia omnia integra.

Folia lanceolata vel linearia.

Planta tota canescens. Calyces breviter
dentati

2. S. LAVANDULÆFOLIA.

Folia viridula. Calyces profunde fissi

1. S. CRETICA.

Folia oblonga vel ovata.

Calyx viscoso-villosus. Folia vix semipollicaria

7. S. TRILOBA.

Calyx villosus non viscosus.

Folia ramorum sterilibus margine undulato-crispa

4. S. CRASSIFOLIA.

Folia plana.

Folia basi angustato-rotundata

3. S. OFFICINALIS.

Folia basi lato-rotundata vel cordata

5. S. GRANDIFLORA.

Folia saltem inferiora pinnatisecta.

Foliorum inferiorum segmenta unijuga cum impari, superiora integra. Planta canescens.

Folia parva. Calyx viscoso-villosus

7. S. TRILOBA.

Folia ultra 2 poll. longa. Calyx villosus non viscosus

6. S. CONFUSA.

Foliorum segmenta 2-4-juga ovata vel oblonga. Planta subviridis.

Calyx truncatus vix dentatus

10. S. PINNATA.

Calyx bilabiatus 5-dentatus.

Calyx nutans. Corollæ tubus recurvo-adscendens

9. S. RINGENS.

Corollæ tubus subrectus.

Folia floralia magna persistentia flores amplectentia

13. S. BRACTEATA.

Folia floralia decidua.

Foliorum segmenta valde inæqualia, pluribus minimis inter alia interjectis

8. S. INTERRUPTA.

Foliorum segmenta subæqualia vel extimo majore.

Caulis erectus elatus. Folia floralia ovata acuminata

11. S. INCARNATA.

Caulis humilis adscendens.

Folia floralia ovato-lanceolata

12. S. ROSÆFOLIA.

Foliorum segmenta pluri-juga linearia subdissecta

14. S. SCABIOSÆFOLIA.

SECT. II. HYMENOSPHACE. *Calycis labium superius tridentatum, dentibus omnibus maturatione membranaceo-dilatatis venosis. Corollæ tubus intus annulatus, labium superius subfalcatum, inferioris lobi laterales patentes. Connectiva postice porrecta loculum difformem cassum rarius polliniferum etsi minorem ferentia, extremitate plerumque connexa.*

Folia saltem inferiora pinnatisecta.

Folia caulina omnia pinnatisecta 2-3-juga.

Calyces parum ampliati . . . 15. S. LINKIANA.

Folia caulina superiora integra, inferiora 1-2-

juga. Calyces fructiferi amplissime campanulati . . . 16. S. ACETABULOSA.

Folia omnia integra.

Folia ovato-subrotunda vel oblonga.

Caulis herbaceus.

Planta tota incano-tomentosa . . . 19. S. MULTICAULIS.

Planta vix in parte superiore canescens . . . 20. S. MOLUCCELLÆ.

Caulis saltem basi fruticosus.

Frutices ramosissimi. Folia $\frac{1}{2}$ -pollicem vel vix pollicem longa subsessilia.

Folia integerrima vix venosa . . . 21. S. AUREA.

Folia apice denticulata venoso-rugosa.

Calyx fere glaber. 23. S. PANICULATA.

Calyx piloso-hispidus 22. S. AFRICANA.

Frutices basi ramosi, ramis floriferis elongatis erectis. Folia petiolata ultra 2 poll. longa.

Folia margine undulato-crispa . . . 17. S. POMIFERA.

Folia plana 18. S. CALYCINA.

Folia lanceolata vel linearia.

Folia glabra viridia 24. S. DENTATA.

Folia niveo-tomentosa 25. S. NIVEA.

Folia hastato-triangularia 26. S. CANARIENSIS.

SECT. III. DRYMOPHACE. *Calycis labium superius truncatum subintegrum vel brevissime tridentatum. Corollæ tubus intus annulatus, labio superiore falcato compresso, inferioris lobis lateralibus patentibus. Connectiva postice porrecta, loculum difformem cassum ferentia, vix connexa.*

Calyx truncatus vix bilabiatus obsolete dentatus . . . 30. S. CAMPANULATA.

Calyx bilabiatus, labio inferiore bifido.

Calyx ample campanulatus. Racemus densus

ramosus 29. S. HIANs.

Calyx tubuloso-campanulatus. Racemus laxus.

Folia omnia basi cordato-sagittata apice

longe acuminata 27. S. GLUTINOSA.

Folia superiora basi rotundata vel angustata . . . 28. S. NUBICOLA.

SECT. IV. HORMINUM. *Calyx tubulosus, labio superiore truncato subtridentato. Corollæ tubus intus exannulatus. Corollæ labium superius rectum vel falcatum, inferioris lobi laterales oblongi erecti subtorti. Connectiva postice deflexa abrupte dilatata, extremitate callosa connexa.*

Calyx tubulosus.

Corolla calyce plus duplo longior . . . 33. S. FORSKÖHLII.

Corolla calycem breviter superans.

Folia floralia suprema colorata comosa . . . 32. S. HORMINUM.

Folia floralia suprema calyce breviora . . . 31. S. VIRIDIS.

SECT. V. ÆTHIOPIS. *Calyx tubulosus vel campanulatus, labio superiore tridentato, dentibus erectis. Corollæ tubus intus exannulatus, labium superius falcatum compressum, inferioris lobi laterales oblongi erecti subtorti. Connectiva postice deflexa abrupte dilatata, extremitate callosa connexa. Panicula divaricato-ramosa.*

- Folia floralia pedunculo vix longiora.
 Racemus densus spicæformis 35. S. COMMUTATA.
 Racemus elongatus subsimplex.
 Calyx inflato-campanulatus 34. S. INDICA.
 Calyx ovato-campanulatus non inflatus (Vide Sect. VI. PLETHIOSPHACE.)
 Racemus paniculato-ramosus.
 Folia utrinque viridula 36. S. SYRIACA.
 Folia utrinque candida.
 Verticillastri 6-10-flori 38. S. CANDIDISSIMA.
 Verticillastri 2-4-flori 37. S. ODORATA.
 Folia floralia latissima acuta adpressa.
 Folia vel foliorum lobi lato-ovata.
 Folia omnia viridia glabra vel villosa.
 Dentes calycini spinosi.
 Calyx tubulosus 40. S. SPINOSA.
 Calyx campanulatus 41. S. TINGITANA.
 Dentes calycini innocui.
 Folia rugosissima 36. S. SYRIACA.
 Folia lævia 42. S. PRÆCOX.
 Folia supra viridia glabra subtus candidissima 47. S. BROUSSONETI.
 Folia saltem inferiora utrinque plus minusve albo-lanata vel cano-tomentosa.
 Folia viridia lana alba laxa.
 Folia floralia omnia florifera 43. S. ÆTHIOPIS.
 Folia floralia suprema sterilia.
 Folia inferiora ample ovata.
 Folia inferiora longe petiolata 48. S. MOORCROFTIANA.
 Petiolus foliorum inferiorum limbo subbrevior.
 Planta subbipedalis. Panicula valde ramosa 45. S. ARGENTEA.
 Planta vix pedalis. Panicula parum ramosa 46. S. VERBASCIFOLIA.
 Folia ovato-oblonga 44. S. COMPRESSA.
 Folia cano-tomentosa.
 Tomentum foliorum densissimum 38. S. CANDIDISSIMA.
 Folia canescentia tomento tenui 39. S. SCLAREA.
 Folia vel foliorum lobi oblongi lanceolati vel lineares.
 Folia simplicia subintegerrima 49. S. LANATA.
 Folia pinnatifida vel profunde dentata 50. S. PHLOMOIDES.
 Folia bipinnatifida 51. S. CERATOPHYLLA.
 52-53. Species Sectionis V. dubiæ vel non satis notæ.

SECT. VI. PLETHIOSPHACE. *Calyx campanulatus, labio superiore concavo bisulcato, dentibus 3 minimis conniventibus. Corollæ tubus intus exannulatus, labium superius falcatum compressum vel subrectum, inferioris lobi laterales oblongi erecti subtorti. Connectiva postice deflexa abrupte dilatata, extremitate callosa connexa. Racemi simplices vel virgato-ramosi.*

Corolla pollicaris et ultra. Labium superius magnum falcatum compressum.

Pedicelli calyce longiores.

Folia inferiora inciso-palmatifida.

Corolla 15-18 lin. longa 54. S. BICOLOR.

Corolla vix pollicaris 57. S. INAMÆNA.

Folia inferiora ovata crenata 55. S. ALGERIENSIS.

Folia superiora cordata remote crenata 56. S. LATIFOLIA.

- Folia superiora lanceolata serrata . 55. *S. ALGERIENSIS*.
 Pedicelli calyce breviores.
 Folia inciso-pinnatifida, lobis oblongo-lanceolatis . 59. *S. CERATOPHYLLOIDES*.
 Folia eroso-dentata vel vix incisa, lobis ovatis.
 Corollæ ochroleucæ.
 Folia lato-ovata. Genitalia longe exserta . 58. *S. AUSTRIACA*.
 Folia oblongo-lanceolata. Genitalia vix exserta . 65. *S. RUGOSA*.
 Corollæ cœruleæ vel variegatæ.
 Caulis subsimplex 1-3-pedalis.
 Folia caulina ovato-lanceolata . 60. *S. PRATENSIS*.
 Folia caulina lato-ovata cordata . 61. *S. DUMETORUM*.
 Caulis 4-6-pedalis. Panicula ramosa maxima . 63. *S. VIRGATA*.
 Corolla semipollicaris et minor vel rarius 8-9 lin. longa.
 Folia inciso-pinnatifida.
 Foliorum lobi lanceolati vel anguste oblongi ultra medium folii attingentes.
 Caulis elatus. Calyces glutinoso-villosi.
 Corolla 8-9 lin. longa . 59. *S. CERATOPHYLLOIDES*.
 Caulis humilis. Calyces dense lanati.
 Corolla minima vel vix semipollicaris . 75. *S. CONTROVERSA*.
 Foliorum lobi ovati vel ovato-lanceolati ad medium folii rarius attingentes . 74. *S. CLANDESTINA*.
 Folia integra crenata vel eroso-dentata.
 Racemi erecti stricti.
 Folia omnia oblongo-lanceolata vel anguste oblonga.
 Folia subtus canescentia.
 Racemus purpurascens, axi cano-pubescente . 68. *S. SYLVESTRIS*.
 Racemus dense lanatus flavescens . 76. *S. NUBIA*.
 Folia tenuia utrinque viridia . 73. *S. VERBENACA* β.
 Folia rugosissima utrinque viridia.
 Folia utrinque villosissima . 66. *S. DISERMAS*.
 Folia supra glabra . 72. *S. NUDICAULIS*.
 Folia saltem inferiora lato-ovata vel ovato-oblonga.
 Folia uti tota planta viscosa.
 Folia ovata crenata plerumque obtusa basi cordata . 64. *S. VISCOSA*.
 Folia incisa acutiuscula basi truncata . 62. *S. LUSITANICA*.
 Folia uti plantæ pars inferior non viscosa.
 Folia utrinque villosa . 65. *S. RUGOSA*.
 Folia supra glabra.
 Racemi stricti densiflori. Verticillastri approximati.
 Folia floralia per anthesin adpressa . 67. *S. SIBTHORPII*.
 Verticillastri remoti. Folia floralia per anthesin reflexa.

Planta vix bipedalis. Corolla vix semipollicaris.

Folia bullato-rugosissima basi cordata . . . 71. S. BULLATA.

Folia parum rugosa, inferiora basi angustata . . . 73. S. VERBENACA.

Planta 4-6-pedalis. Corolla plerumque 8-10-linearis . . . 63. S. VIRGATA.

Racemi apice nutantes.

Folia subradicalia longissime petiolata. Caulis subnudus . . . 70. S. NUTANS.

Folia caulina plura subsessilia . . . 69. S. PENDULA.

77-82. Species Sectionis VI. dubiæ vel non satis notæ.

SECT. VII. MICROSPHACE. *Calyx ovatus, labio superiore integro. Corolla minima, labio superiore recto, inferioris lobis patentibus. Connectiva postice deflexa linearia longitudinaliter connata. Styli lobi complanato-dilatati rotundati.*

Species unica mihi cognita . . . 83. S. OCCIDENTALIS.

Species non satis nota . . . 84. S. MISELLA.

SECT. VIII. CALOSPHACE. *Calycis labium superius integrum vel tricuspidatum. Corollæ tubus intus exannulatus, labium superius subrectum, inferioris lobi patentes vel laterales subreflexi. Connectiva postice deflexa linearia longitudinaliter connata vel rarissime sublibera approximata.*

§ 1. MICRANTHÆ. *Corolla vix 3-linearis, calyce dimidio vel vix duplo longior. Tubus inclusus. Labium inferius superiore erecto subduplo longius.—Herbæ corollis cæruleis.*

Folia floralia persistentia.

Caulis ultra pedales . . . 85. S. OBSCURA.

Caulis vix 3-pollicares . . . 86. S. TENELLA.

Folia floralia decidua.

Folia ovata vel rotundata (cfr. etiam § 2. *Brachyanthas*).

Folia subsessilia.

Calycis labium superius integerrimum . . . 90. S. INCONSPICUA.

Calycis labium superius tricuspidatum . . . 91. S. RIPARIA.

Folia petiolata.

Folia vix pollicaria.

Flores inferiores ad axillas foliorum caulinum . . . 89. S. HUMILIS.

Flores omnes racemosi.

Corollæ albidæ calycem vix excedentes . . . 88. S. SEROTINA.

Corollæ cæruleæ calyce dimidio longiores . . . 87. S. MICRANTHA.

Folia 2-3-pollicaria.

Caulis erecti. Folia basi truncata vel cordata . . . 92. S. TILIÆFOLIA.

Caulis procumbentes flexuosi. Folia basi cuneata . . . 93. S. FLEXUOSA.

Folia lanceolata vel linearia.

Folia lanceolata. Corolla calyce vix longior . . . 94. S. LANCEOLATA.

Folia linearia. Corolla calyce subduplo longior . . . 95. S. LEPTOPHYLLA.

§ 2. BRACHYANTHÆ. *Folia floralia bractæformia decidua. Calyces glabri villosi vel cano-tomentosi nec dense omentoso-lanati. Corolla 4-linearis vel longior.*

*Tubus inclusus vel vix calyce plus dimidio longior. Labium inferius superiore plerumque longius, planum, lobis rotundatis, medio maximo. Flores cœrulei vel rarius albidii vel pallide carnei nec coccinei nec flavidi.**

a. *Angustifoliæ.* Folia linearia vel lanceolata basi angustata vel cuneata plerumque petiolata.

Folia linearia vel lineari-lanceolata basi longe angustata.

Folia floralia membranacea lato-ovata acuminata.

Racemus elongatus. Verticillastri secundi distantes 100. S. LÆVIS.

Racemus densus spicæformis.

Folia subtus tomentosa 102. S. LAVANDULOIDES.

Folia concoloria 103. S. STACHYOIDES.

Folia floralia lanceolata subulata.

Calyx glaber.

Folia anguste linearia. Caulis procumbens 95. S. LEPTOPHYLLA.

Folia lanceolato-linearia. Caulis erectus 98. S. AZUREA.

Calyx villosus.

Herba procumbens canescens 97. S. PALLIDA.

Herba erecta rigida cano-tomentosa 99. S. PITCHERI.

Herba basi procumbens, ramis erectis viridibus patentim pilosis 96. S. ANGUSTIFOLIA.

Folia oblongo-lanceolata basi cuneata

Frutices ramosi.

Tota glaberrima 116. S. ARENARIA.

Folia subtus albo-vel rufo-tomentosa

Rami albo-tomentosi 106. S. COLLINA.

Rami et folia subtus dense rufo-lanati 105. S. CORRUGATA.

Rami glabri 108. S. SPICATA.

Herbæ vel frutices, ramis elongatis erectis herbaceis.

Racemus densus spicæformis.

Folia profunde et grosse serrata 101. S. ULIGINOSA.

Folia crenulata.

Folia subtus cano-tomentosa 102. S. LAVANDULOIDES.

Folia concoloria 103. S. STACHYOIDES.

Racemus elongatus interruptus.

Folia subsessilia 109. S. HELIANTHEMIFOLIA.

Petiolus semipollicaris et ultra.

Folia profunde serrata 117. S. SERRATA.

Folia leviter crenato-serrata 118. S. URUGUAYENSIS.

b. *Ovatifoliæ.* Folia petiolata ovato-rotundata ovata vel ovato-lanceolata basi rotundata truncata vel cuneata rarius subsessilia basi cuneata.

Folia subsessilia plerumque parva rarius pollicaria.

Racemus elongatus longe pedunculatus.

Verticillastri multiflori 109. S. HELIANTHEMIFOLIA.

Racemus brevis. Flores pauci.

Folia integerrima 112. S. THYMOIDES.

Folia crenata.

Procumbens. Folia floralia lato-ovata membranacea

111. S. CHAMÆDROIDES.

Rami erecti.

* Species coccineæ inter *Longifloras*, flavidæ inter *Erianthas* vel *Longifloras* petendæ.

- Calycis labium superius tri-
dentatum 108. *S. SPICATA*.
- Calycis labium superius inte-
grum 110. *S. SIDERITIDIS*.
- Folia plusquam pollicaria vel distincte petio-
lata.
- Racemus densus spicæformis.
- Folia lato-ovata.
- Calyx molliter cano-pubescens vel
tomentosus.
- Verticillastri subæquales. Folia
subtus pallida 132. *S. HISPANICA*.
- Verticillastri secundi. Folia sub-
tus alba 164. *S. BREVIFLORA*.
- Calyx piloso-hispidus.
- Folia acuta subtus pallida 133. *S. POLYSTACHYA*.
- Folia obtusa subtus albo-tomen-
tosa 134. *S. KEERLII*.
- Folia ovato-oblonga.
- Folia concoloria 104. *S. ELONGATA*.
- Folia subtus albo-vel rufo-tomentosa.
- Folia vix rugosa basi acuta 106. *S. COLLINA*.
- Folia rugosissima basi obtusa 105. *S. CORRUGATA*.
- Racemus elongatus interruptus.
- Calycis labium superius tridentatum.
- Folia basi cuneata.
- Folia subtus glabriuscula 115. *S. PRUNELLOIDES*.
- Folia subtus tomentoso-hirta 114. *S. NANA*.
- Folia basi truncata 113. *S. GLECHOMÆFOLIA*.
- Calycis labium superius integrum.
- Racemi numerosi paniculati.
- Calyx molliter cano-pubescens 132. *S. HISPANICA*.
- Calyx piloso-hispidus.
- Folia acuta subtus pallida 133. *S. POLYSTACHYA*.
- Folia obtusa subtus albo-to-
mentosa 134. *S. KEERLII*.
- Racemus subsimplex.
- Folia ovato-oblonga basi subcu-
neata.
- Frutices ramosi.
- Folia concoloria.
- Tota glaberrima 116. *S. ARENARIA*.
- Caulis pars superior et
calyces glandu-
loso-pilosi.
- Folia supra viscosa 174. *S. PUNCTATA*.
- Folia non viscosa.
- Folia utrinque villosa 126. *S. GLANDULIFERA*.
- Folia supra tenuiter
subtus incano-
pubescentia 127. *S. HIRTA*.
- Folia subtus albo-tomentosa.
- Rami albo-tomentosi 106. *S. COLLINA*.
- Rami glabri 108. *S. SPICATA*.
- Herba adscendens 10-12 poll. 107. *S. ASSURGENS*.
- Herbæ erectæ elatæ parum ra-
mosæ.
- Folia viridia profunde serrata 117. *S. SERRATA*.
- Folia pallida crenato-serrata 118. *S. URUGUAYENSIS*.
- Folia basi truncata in petiolum
angustata 119. *S. URTICÆFOLIA*.
- Folia basi rotundato-truncata.
- Folia subtus albo-tomentosa.
- Calycis fructiferi labia in-
curva 131. *S. INCURVATA*.

- Calycis fructiferi labia recta . 130. S. MITIS.
 Folia subtus viridia vel pallida.
 Calycis labium superius galeatum 129. S. GALEATA.
 Calycis labium superius rectum.
 Folia lata rhomboideo-ovata . 123. S. RHOMBIFOLIA.
 Folia ovata obtusiuscula.
 Herbæ annuæ.
 Corolla calyce triplo longior . . . 125. S. VIOLACEA.
 Corolla calyce dimidio longior . . . 124. S. TAFALLÆ.
 Herbæ perennes vel suffrutices . . . 128. S. CRUIKSHANKSII.
 Folia ovata acuminata.
 Calyces 5-6 lin. longi . 122. S. MEMBRANACEA.
 Calyces vix 2-3 lin. longi.
 Calyces glabri rubescentes . . . 120. S. GRACILIS.
 Calyces brevissime cano-pubescentes . . . 121. S. LEPTOSTACHYA.
 Folia ovato-lanceolata acuta utrinque viridia . . 147. S. VISCIDA.
 Folia oblongo-lanceolata subtus rufo-tomentosa . . . 105. S. CORRUGATA.
- c. *Cordifoliæ*. Folia petiolata basi plus minusve cordata.
- Frutices vel herbæ erectæ.
 Racemi densiflori paniculato-ramosi.
 Folia lanceolata acuta . . . 140. S. RACEMOSA.
 Folia ovata subobtusa.
 Racemi secundi. Calyces albotomentosi . . . 164. S. BREVIFLORA.
 Racemi subæquales. Calyces piloso-hirti . . . 134. S. KEERLII.
 Folia cordato-sagittata subdeltoidea . 142. S. PALÆFOLIA.
 Racemi laxi subsimplices.
 Herba annua. Folia lato-rhomboidea 123. S. RHOMBIFOLIA.
 Herbæ perennes vel frutices. Folia ovata vel ovato-lanceolata.
 Rami pilis longis patentibus hirsuti 137. S. AMARISSIMA.
 Rami breviter tomentosi pubescentes vel glabri.
 Folia ovato-lanceolata serrata vix rugosa.
 Folia subtus albida . . . 139. S. GILLIESII.
 Folia viridia . . . 141. S. CARNEA.
 Folia cordiformia obtusa crenata rugosissima.
 Dentes calycini cuspidati . 138. S. CUSPIDATA.
 Dentes calycini obtusi.
 Pedicellus vix 1 lin., calyx 2-3 lin. longus 136. S. SCORODONIA.
 Pedicellus sub-3 lin., calyx 4-5 lin. longus 135. S. SEMIATRATA.
- Herbæ procumbentes subrepentes.
 Folia breviter petiolata dense villosa.
 Calyces tubulosi . . . 144. S. PROPINQUA.
 Folia longe petiolata glabra vel parce villosa. Calyces campanulati . . 143. S. PROCURRENS.
- d. *Sessilifoliæ*. Folia sessilia vel subsessilia basi rotundata vel truncata. (Species omnes Brasilianæ.)
- Racemi densi spicæformes vel paniculato-ramosi (cfr. supra *Ovatifolias*).

Racemi elongati simplices.

- Folia ovalia acuta basi rotundata . . . 145. S. OVALIFOLIA.
 Folia elliptica obtusa basi subcordata . . . 146. S. LACHNOSTACHYA.
 Folia ovata vel ovato-lanceolata basi
 cordata.
 Folia 3-5-pollicaria supra pubescen-
 tia subtus subalbo-tomentosa . . . 148. S. CORDATA.
 Folia 1-1½-pollicaria rigida utrinque
 glabriuscula . . . 149. S. NERVOSA.
 Folia 1-2-pollicaria mollia utrinque
 hispida . . . 147. S. VISCIDA.
 Folia lato-lanceolata utrinque viridia
 basi cordata . . . 150. S. RIGIDA.
 Folia lanceolato-lineararia subtus cano-to-
 mentosa basi subcordata . . . 151. S. ROSMARINOIDES.

§ 3. AXILLÆFLORÆ. *Folia floralia caulinis conformia. Flores axillares. Corollæ tubus calyce æqualis vel vix dimidio longior.—Suffrutices vel fruticuli humiles, floribus cærulescentibus.*

- Folia oblongo-lineararia integerrima . . . 152. S. AXILLARIS.
 Folia ovato-cuneata subdentata . . . 153. S. CUNEIFOLIA.
 Folia lato-ovata basi cordata vel truncata.
 Dentes calycini acuti . . . 154. S. CALAMINTHÆFOLIA.
 Dentes calycini obtusi . . . 155. S. BALLOTÆFLORA.

§ 4. MEMBRANACEÆ. *Folia floralia bractæformia dilatata patentia membranacea. Corollæ tubus inclusus vel vix calyce longior.—Herbæ vel suffrutices? floribus cærulescentibus.*

- Calyx membranaceus vix sesquilineam lon-
 gus . . . 156. S. BUPLEVROIDES.
 Calyx herbaceus 3 lineas longus . . . 157. S. MOCINNI.

§ 5. BRACTEATÆ. *Folia floralia bractæformia persistentia herbacea lato-rotundata flores amplexentia. Corollæ tubus inclusus vel calyce vix dimidio longior. Herbæ fruticesve, floribus cærulescentibus.*

- Folia lanceolata vel oblonga . . . 158. S. HIRSUTA.
 Folia ovata.
 Folia basi profunde cordata . . . 162. S. MACROSTACHYA.
 Folia basi rotundata vel truncata.
 Folia basi in petiolum decurrentia . . . 161. S. PARQUERENSIS.
 Folia in petiolum non decurrentia.
 Folia subtus albo-tomentosa. Ver-
 ticillastri approximati . . . 160. S. SPECIOSA.
 Folia subtus pubescentia. Verti-
 cillastri distantes . . . 159. S. CLINOPODIOIDES.

§ 6. ERIANTHÆ. *Folia floralia bractæformia decidua. Calyces dense tomentoso-lanati. Corollæ tubus calyce vix dimidio longior.—Herbæ fruticesve, floribus albidis flavescentibus vel rarius rubescentibus.*

- Racemus densus spicæformis, verticillastri-
 imbricatis.
 Folia cordata. Calyces dense tomentoso-
 lanati . . . 163. S. LEUCOCEPHALA.
 Folia truncato-cordata. Tomentum
 breve . . . 164. S. BREVIFLORA.
 Racemus elongatus. Verticillastri saltem
 inferiores remoti.
 Folia lanceolato-lineararia.
 Folia membranacea profunde dentata
 subtus pallida . . . 165. S. FARINACEA.
 Folia rugosa crenulata subtus tomen-
 tosa vel lanata.

- Folia margine revoluta 166. S. REVOLUTA.
 Folia plana.
 Folia longe lanceolata acuta 167. S. LEUCANTHA.
 Folia oblongo-lanceolata obtusa 168. S. VELUTINA.
 Folia ovata.
 Folia basi cordata vel rotundata 171. S. LASIANTHA.
 Folia basi angustata vel cuneata.
 Folia subtus albo-lanata 169. S. ERIOCALYX.
 Folia subtus rufo-villosa 170. S. CONFERTIFLORA.

§ 7. LONGIFLORÆ. Corollæ tubus calyce 2-5-plo longior, labium inferius superiore plerumque brevior vel rarius longior. — Herbæ, suffrutices fruticesve, corollis albidis flavescentibus cœrulescentibus coccineis vel purpureis.

a. Albidæ. Corollæ albidæ.

Species unica 172. S. TOMENTELLA.

b. Aurantiacæ. Corollæ aurantiacæ vel lutescentes.

Verticillastri pluriflori.

Calyx glanduloso-pilosus.

Folia subtus albo-tomentosa 173. S. LUTEA.

Folia utrinque viridia glabra.

Folia subintegerrima obtusa 175. S. PAVONII.

Folia acuta serrata 174. S. PUNCTATA.

Calyx glaberrimus 176. S. INTEGRIFOLIA.

Verticillastri biflori.

Folia basi cordata.

Folia mollia subtus saltem juniora

albo-tomentosa 180. S. TUBIFLORA.

Folia coriacea glabra concoloria 178. S. GLUMACEA.

Folia basi rotundato-truncata.

Folia herbacea rugosa 177. S. OPPOSITIFLORA.

Folia crassa subcarnosa 179. S. STRICTIFLORA.

c. Coccineæ. Corollæ coccineæ vel purpureæ.

Verticillastri axillares. Folia floralia caulinis conformia.

Folia basi angustata 183. S. BALAUSTINA.

Folia basi truncata vel cordata.

Folia ovata.

Corollæ tubus ventricosus 181. S. LEONUROIDES.

Corollæ tubus incurvus subæqualis 182. S. PLUMOSA.

Folia rotundata 206. S. REGLA.

Flores racemosi. Folia floralia bractæformia.

Folia oblongo-lanceolata vel elliptica basi angustata.

Folia supra scaberrima.

Calyces lana rufo-purpurea densissima induti 186. S. PERSICÆFOLIA.

Calyces breviter pubescentes.

Folia oblongo-elliptica 184. S. ASPERIFOLIA.

Folia oblongo-lanceolata 185. S. SCABRIDA.

Folia supra læviuscula.

Calyces dense lanati vel corrugati.

Folia mollia subtus pallida lana.

Calyces subsericei albi vel rufescentes 187. S. MARIANA.

Folia rugosa subtus albo-tomentosa 190. S. HÆNKEI.

Folia rigidia utrinque viridia glabra.

Lana calycum longa purpurea 186. S. PERSICÆFOLIA.

Calyces lana brevi corrugati 188. S. HILARII.

Calyces glabri vel pubescentes (et vide post ad ⁽¹⁾) 189. S. SALICIFOLIA.

Folia ovata vel ovato-oblonga basi rotundata vel cuneata.

(¹)Folia ovato-oblonga, ovata vel lato-ovata, acuta vel acuminata.

Corollæ coccineæ.

Folia subtus cano- vel albo-tomentosa.

Folia oblonga subtus albo-tomentosa . . . 190. S. HÆNKEI.

Folia ovata acuta vel acuminata subtus cano- vel rufo-tomentosa.

Stamina longe exserta. Folia floralia calyce longiora . . . 193. S. NEOVIDENSIS.

Stamina corolla breviora vel vix longiora. Folia floralia minuta ante anthesin decidua.

Flores pollicares longe pedicellati.

Folia subtus rufescentia . . . 191. S. TORTUOSA.

Flores 15-17 lin. longi, breviter pedicellati. Folia subtus canescentia . . . 192. S. CURVIFLORA.

Folia concoloria subtus glabra vel pubescentia.

Calyx usque ad basin membranaceus coccineus.

Calyx tubulosus vel tubuloso-campulatus . . . 202. S. SPLENDENS.

Calyx inflato-vesiculosus . . . 204. S. SESSEI.

Calyx viridis vel apice tantum coloratus.

Racemus densus spicæformis. Folia floralia margine membranacea . . . 203. S. INVOLUCRATA.

Racemus elongatus laxus. Folia floralia calyce subbreviora.

Calyces et axis racemi viscoso-villosi.

Folia glabra. Calycis dentes obtusi . . . 197. S. HIRTELLA.

Folia pubescentia v. hispida. Calycis dentes subulato-acuminati . . . 200. S. ELEGANS.

Calyces et axis racemi glabri vel villosi vix viscosi.

Folia basi rotundata.

Corollæ pubescentes calyce 2-3-plo longiores . . . 199. S. CILIATA.

Corollæ glabræ calyce 4-5-plo longiores . . . 201. S. MENTIENS.

Folia basi cuneata.

Corolla calyce vix duplo longior . . . 198. S. SECUNDA.

Corolla calyce 2-4-plo longior.

Corolla glabra . . . 195. S. ALTISSIMA.

Corolla villosa.

Calycis dentes obtusi . . . 194. S. FRUTICETUM.

Calycis dentes subulato-acuminati . . . 196. S. MOSCHATA.

Corollæ violaceæ.

Racemus densus multiflorus . . . 236. S. PURPUREA.

Racemus elongatus pauciflorus . . . 232. S. TUBIFERA.

Corollæ labium superius brevissimum.

Corollæ labia subæqualia . . . 235. S. AFFINIS.

Folia ovata obtusa vel subrotunda.

- Flores axillares vel brevissime spicati 206. S. REGLA.
 Racemi elongati, verticillastris distantibus.
 Corollæ tubus subtus ventricosus ad faucem contractus.
 Folia 3-4 lin. longa 208. S. MICROPHYLLA.
 Folia subpollicaria 207. S. GRAHAMI.
 Corollæ tubus superne ampliatus ad faucem non contractus 209. S. SUBROTUNDA.
 Folia basi plus minusve cordata.
 Folia subtus canescentia v. albo-tomentosa.
 Corollæ labium inferius lato-rotundatum, superiore longius.
 Caulis basi patentim pilosus 211. S. PSEUDOCOCCINEA.
 Caulis basi muricato-hispidus 212. S. PHŒNICEA.
 Caulis tomentoso-pubescent nec patentim pilosus 210. S. COCCINEA.
 Corollæ labia subæqualia vel inferius brevius.
 Corolla quinquepollicaris 219. S. LONGIFLORA.
 Corolla bipollicaris vel minor.
 Folia obtusa.
 Flores axillares vel brevissime spicati 206. S. REGLA.
 Racemus elongatus 216. S. SQUALENS.
 Folia acuta.
 Calyx vesiculato-inflatus 205. S. ADGLUTINANS.
 Calyx tubulosus.
 Corolla 1-2-pollicaris.
 Racemi simplices 214. S. FULGENS.
 Racemi paniculato-ramosi 215. S. RUBESCENS.
 Folia concoloria.
 Folia floralia incarnata membranacea calycem æquantia 218. S. ACUMINATA.
 Folia floralia viridula calyce breviora.
 Caules et petioli flavo-hirsutissimi 217. S. AYAVACENSIS.
 Caules pubescentes vel hispidi.
 Stamina longe exserta 212. S. PHŒNICEA.
 Stamina corolla breviora vel vix longiora 213. S. PULCHELLA.
 d. Cæruleæ. Corollæ cæruleæ.
 Folia basi hastata vel cordata.
 Folia basi hastato-cordata.
 Racemi paniculati vel ramosi.
 Folia subtus incana 220. S. RUMICIFOLIA.
 Folia concoloria.
 Folia longissime petiolata 221. S. PETIOLARIS.
 Petioli limbo folii breviores 222. S. SAGITTATA.
 Racemi simplices.
 Calyx late campanulatus. Corolla amplissima hians 224. S. PATENS.
 Calyx tubuloso-campanulatus. Corolla ventricosa 223. S. SCUTELLARIOIDES.
 Folia cordata, auriculis rotundis.
 Racemi densiflori subpaniculati. Calyx molliter lanatus 236. S. PURPUREA.
 Racemi elongati subsimplices. Calyx glaber vel villosus.
 Stamina exserta 225. S. LONGISTYLA.
 Stamina inclusa.
 Verticillastri secundi 233. S. GUARANITICA.
 Verticillastri subæquales.

- Planta tota glabra . 229. S. GLABRATA.
 Planta plus minusve villosa.
 Calyx 7-8 lin. longus . 226. S. AMETHYSTINA.
 Calyx 3-5 lin. longus . 227. S. CYANEA.
 Folia basi truncata rotundata vel cuneata.
 Racemi densiflori paniculati. Calyx
 molliter lanatus . . . 236. S. PURPUREA.
 Racemi elongati subsimplices. Calyx
 glaber vel villosus.
 Folia subtus canescentia.
 Folia rugosissima basi truncato-
 subcordata. Caulis piloso-
 hispidus . . . 233. S. GUARANITICA.
 Folia vix rugosa basi rotundato-
 cuneata. Caulis glaber vel
 cano-pubescens.
 Corollæ tubus ventricosus ad
 faucem contractus . 228. S. MEXICANA.
 Corollæ tubus tenuis ad faucem
 non contractus . . 232. S. TUBIFERA.
 Folia concoloria.
 Verticillastri approximati multi-
 flori secundi. Genitalia
 exserta . . . 235. S. AFFINIS.
 Verticillastri distantes subæquales.
 Genitalia corollam subæ-
 quantia.
 Corolla extus glabriuscula.
 Corollæ (sesquipollicaris)
 tubus superne amplia-
 tus, labium inferius ob-
 longum ei subæquale . 231. S. CÆRULEA.
 Corollæ (15-linearis) tubus
 tenuis, labium inferius
 brevissimum . . 232. S. TUBIFERA.
 Corolla extus villosa.
 Calyces subsessiles . 234. S. LAMIIFOLIA.
 Calyces longe pedicellati . 230. S. CONCOLOR.
 237-242. Species Sectionis VIII. incertæ sedis vel dubiæ.

SECT. IX. ECHINOSPHERE. *Folia floralia et bracteæ imbricatæ spinosæ. Calyx ovatus, labio superiore tridentato, dentibus omnibus spinosis. Corollæ tubus intus annulatus, labium superius rectum, inferioris lobo medio maximo lacero-fimbriato. Connectiva postice remota porrecta loculum subconformem polliniferum ferentia.*

- Species unica 243. S. CARDUACEA.

SECT. X. PYCNOSPHERE. *Folia floralia et bracteæ imbricatæ muticæ. Calyx ovatus, labio superiore tridentato, dentibus omnibus subulatis. Corollæ tubus intus annulatus, labium superius rectum, inferioris lobus medius integer. Connectiva postice remota porrecta loculum subconformem polliniferum ferentia.*

- Species unica a me visa 244. S. COLUMBARIA.
 Species dubia 245. S. LEONIA.

SECT. XI. HETEROSPHERE. *Folia floralia decidua. Bracteæ subnullæ. Calyx tubulosus, labio superiore truncato tridentato. Corollæ tubus intus annulatus, labium superius rectum, inferioris lobi patentes. Connectiva postice remota porrecta loculum subconformem polliniferum ferentia.*

Caulis erectus vel adscendens foliosus.

Folia integra lato-ovata subcordata, vel lyrata
lobo extimo maximo, cæteris paucis parvis.

Corolla calyce dimidio longior . . . 246. S. NILOTICA.

Corolla calyce duplo longior.

Caulis elongatus adscendens subsimplex.

Folia 1-2-pollicaria . . . 247. S. SYLVICOLA.

Caulis vix pedalis basi ramosus. Folia

$\frac{1}{2}$ -1-pollicaria . . . 248. S. TENUIFOLIA.

Folia pinnatifida.

Folia lata profunde lyrato-pinnatifida.

Calyx elongatus tubulosus. Corolla sub-
pollicaris . . . 249. S. AURITA.

Calyx abbreviatus. Corolla vix semi-
pollicaris . . . 250. S. SCABRA.

Folia angusta runcinato-pinnatifida.

Herba villosa paniculato-ramosa. Folia
plerumque 1-2-pollicaria . . . 251. S. RUNCINATA.

Herba glabriuscula vix ramosa. Folia
plerumque 2-3-pollicaria . . . 252. S. STENOPHYLLA.

Folia pinnatisecta, inferiora bipinnatisecta . . . 257. S. JAPONICA.

Folia subradicalia vel in caulem repentem. Rami
floriferi subnudi.

Folia elongata runcinato-pinnatifida . . . 253. S. REPENS.

Folia lyrata . . . 254. S. LYRATA.

Folia obovata integra.

Corolla 10 lineas longa . . . 255. S. OBOVATA.

Corolla tenuis vix 7-8 lineas longa . . . 256. S. ACAULIS.

258-260. Species Capenses Thunbergianæ dubiæ.

SECT. XII. NOTIOSPHACE. *Folia floralia et bracteæ minutæ. Calyx ovatus, labio superiore integro vel brevissime tridentato, dentibus conniventibus. Corolla minima. Connectiva postice remota porrecta loculum subconformem polliniferum ferentia.*

Herba erecta. Panicula multiflora. . . 261. S. PLEBEIA.

Suffrutex vel herba perennis procumbens. Rami
pauciflori . . . 262. S. ÆGYPTIACA.

SECT. XIII. GYMNOSPHACE. *Calyx ovato-tubulosus, labio superiore integro. Connectiva postice remota deflexa filiformia acuta, filamentis erectis cum connectivo subcontinuis.*

Species unica . . . 263. S. SAXICOLA.

SECT. XIV. HEMISPFACE. *Calyx tubulosus, labio superiore truncato tridentato. Connectiva postice remota brevissima deflexa acuta dentiformia, filamentis erectis cum connectivo subcontinuis.*

Folia oblonga crassa utrinque albo-lanata . . . 266. S. RUSSELI.

Folia ovata vel lyrata herbacea viridia.

Verticillastri vix 10-flori . . . 265. S. NAPIFOLIA.

Verticillastri plerumque 20-30-flori . . . 264. S. VERTICILLATA.

SECTIO I. EUSPHACE.

Eusphace. *Benth. in Hook. Bot. Misc. 3. 372.*

Calyx campanulatus, labio superiore tridentato, inferiore hispido, dentibus omnibus acutis maturatione vix auctis. Corollæ tubus amplius subexsertus intus piloso-annulatus. Labium superius erectum, infe-

rioris lobi laterales reflexo-patentes, medio lato emarginato-bifido, laciniis subreflexis. Connectiva postice porrecta, loculum difformem cassum vel rarius subpolliniferum ferentia, extremitate subconnexa. —Herbæ vel sæpius suffrutices regionis Mediterraneæ, foliis integris vel pinnatisectis.

1. *S. CRETICA* (Linn.! Spec. 33), fruticosa, caule albo-lanato, ramis floriferis tomentoso-pubescentibus, foliis integris petiolatis oblongo-linearibus basi angustatis rugosis inferioribus subtus albo-lanatis, floralibus sessilibus supremis deciduis, racemis subramosis, verticillastris multifloris, calycibus campanulatis membranaceo-coloratis striatis pubescentibus profunde fissis, labio superiore 3-dentato, inferiore bifido, dentibus omnibus subulato-acuminatis, corollis calyce duplo longioribus, tubo amplo exserto intus annulato, labiis erectis, superiore recto, inferioris lobis lateralibus reflexis, connectivis postice subabortivis vel brevissimis porrectis loculum cassum ferentibus.

S. tenuifolia. Riv. Monop. Irr. 59. t. 128.

S. officinalis angustifolia. Link.?

S. cretica. Schreb. Nov. Act. Nat. Cur. 479. t. 3. DC. Pl. Rar. Hort. Gen. Not. 4. 9. t. 3.

Hab. in Creta? Vahl et Auct. (h. s. c.)

Valde affinis *S. officinali*, cujus varietatem esse suadent Ettling et Willdenowius. Specimina spontanea non vidi, et culta omnia quoad flores monstruosa difformia. Calyces profunde irregulariter fissi. Corollæ lobi valde irregulares. Stamina variabilia, postice sæpe omnino abortiva. Styli et ovaria sæpe duplicata vel multiplicata.* Cæterum a *S. officinali* differt foliis angustissimis longe petiolatis.

2. *S. LAVANDULÆFOLIA* (Vahl! Enum. Pl. 1. 222.), fruticosa albo-tomentosa, foliis integris petiolatis oblongo-lanceolatis basi angustatis rugosis omnibus utrinque albo-tomentosis, floralibus sessilibus supremis deciduis, racemis gracilibus subramosis, verticillastris laxis 6-10-floris, calycibus tubuloso-campanulatis apice membranaceo-coloratis striatis pubescentibus vix bilabiatis, dentibus omnibus subæqualibus subulato-acuminatis, corollis calyce duplo triplove longioribus, tubo amplo exserto intus annulato, labiis erectis, superiore recto, inferioris lobis lateralibus reflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis connatis.

S. hispanorum. Lag.! Gen. et Spec. Nov. Diagn. 1.

S. tenuior. Desf. ex Ræm. et Schult. Syst. Mant. 1. 200.

S. rosmarinifolia. Hortul. ex Ræm. et Schult. l. c.

Hab. in Hispania: in montibus circa Siguenza Vahl! abunde in collibus aridis mediocris altitudinis Lagasca! (v. s. sp. in herb. Vahl, Banks, et Lambert.)

A *S. officinali* et speciebus affinibus differt canescentia, foliis angustis (fere ut in *S. cretica*, sed brevioribus), racemis gracilibus, verticillastris laxis paucifloris, et calycibus minoribus vix bilabiatis. An *S. creticæ* stirps sylvestris?

3. *S. OFFICINALIS* (Linn.! Spec. 34.), caule fruticoso albo-lanato, ramis floriferis tomentoso-pubescentibus, foliis integris petiolatis oblongis basi angustatis rotundatisve rugosis inferioribus subtus albo-lanatis, floralibus sessilibus ovatis acuminatis basi membranaceis striatis, racemis subsimplicibus, verticillastris multifloris distinctis, caly-

* Confer DC. l. c.

cibus campanulatis membranaceo-coloratis striatis pubescentibus, labio superiore tridentato, inferiore bifido, dentibus omnibus subulato-acuminatis, corollis calyce duplo triplove longioribus, tubo amplo exserto intus annulato, labiis erectis, superiore recto, inferioris lobis lateralibus reflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis connatis.

S. hispanica, &c. *Besl. Hort. Eyst. æst. ordo 8. fol. 1. f. 19. 2.*

S. papillosa. *Hoffmansegg. Nachtr. 1. 58 ?*

S. chromatica. *Hoffmansegg. Nachtr. ?*

S. grandiflora. *Ten. Fl. Nap. Prodr. App. 5. 3. ex ejusd. Syll. Fl. Nap. 16. non Ettling.*

Hab. in Europæ australis siccis: in Hispania! Gallia mediterranea! Pedemonte *Allioni*, regno Napolitano *Tenore*, regno Lombardo-Venetiano et Istria *Reichenbach*, Dalmatia *Visiani*. (*h. s. sp.*)

Frutex humilis, divaricatus. Rami erecti, basi foliosi, floriferi pedales sesquipedalesve. Folia 1-1½-pollicaria, obtusiuscula, crenulata, superiora rarius glabriuscula, basi sæpius angustata, infima rarius angustate rotundata vel subcordata; floralia infima herbacea, calyces subæquantia, suprema membranacea, colorata, parva, subdecidua. Verticillastri pauci, 10-20-flori, densi, pedicellis subramosis interioribus elongatis. Calyx 4-5-linearis, 15-nervis, dentibus omnibus acute lanceolatis, tenuiter pubescens, basi submembranaceus, striatus, apice coloratus. Corolla extus tenuiter pubescens, labio superiore subfornicato rotundato subemarginato non compresso, inferioris lobo medio elongato divaricato bifido. Stamina superiorum rudimenta minutissima, inferiorum connectiva ad insertionem filamentorum integra vel parum gibba, postice sub loculo incrassata, filamenta medio connectivi inserta, appendice brevi rotundato. Stylus glaber, subæqualiter apice bifidus.

Variat corollis purpureis cæruleis vel albis, majoribus minoribusve.

4. *S. CRASSIFOLIA* (Desf. *Arbr. et Arbriss. 1. 134. non Sm.*), caule fruticoso albo-lanato, ramis floriferis tomentoso-pubescentibus, foliis petiolatis ovatis obtusis basi subcordatis eroso-crenatis rugosis pubescentibus, ramorum steriliū undulato-crispis utrinque albo-lanatis, floralibus infimis herbaceis supremis membranaceis deciduis, racemis simplicibus, verticillastris multifloris distantibus, calycibus campanulatis submembranaceis coloratis striatis pubescentibus, labio superiore tridentato, inferiore bifido, dentibus omnibus lanceolatis acutis, corollis calyce vix duplo longioribus, tubo amplo subexserto intus annulato, labiis erectis, superiore recto, inferioris lobis lateralibus reflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis connatis.

Hab. in Europa australi? (*h. s. c. comm. a cl. Delile.*)

Species dubia, verosimiliter *S. officinalis* varietas ex cultu orta, sed differre videtur foliis majoribus latioribus basi subcordatis eroso-crenatis, et ramorum steriliū, ut in *S. pomifera*, undulato-crispis, et calycibus majoribus villosioribus. A *S. grandiflora* statura humili et foliorum formâ distinguitur.

5. *S. GRANDIFLORA* (Ettling. *Salv. n. 2.*), caule fruticoso albo-lanato, ramis floriferis tomentoso-pubescentibus, foliis integris petiolatis ovatis acutis basi lato-rotundatis vel cordatis rugosis pubescentibus infimis subtus lanatis, floralibus herbaceis vel supremis basi membranaceis ovatis acutis, racemis subsimplicibus, verticillastris 6-10-floris distinctis, calycibus campanulatis membranaceis coloratis striatis hispidis, labio superiore tridentato, inferiore bifido, dentibus omnibus acutis, corollis calyce duplo triplove longioribus, tubo amplo exserto intus annulato, labiis erectis, superiore recto, inferioris lobis

lateralibus reflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis connatis.

S. major, &c. *Besl. Hort. Eyst. æst. ordo 8. fol. 1. fig. 11.*

S. officinalis. *Pall. Ind. Taur. Habl. Taur. 134. sec. Bieb. non Linn.*

S. tomentosa. *Mill. ! Dict. n. 2.*

S. grandiflora. *Jacq. Fil. Ecl. fasc. 4. 55. t. 36.*

β minor.

Hab. in montosis Tauriæ occidentalis *Pallas!* et meridionalis locis apricis saxosis *Marschall a Bieberstein*, in Oriente *Vahl. (h. s. c. et v. s. sp. in herb. Lambert.)*

Affinis *S. officinali*, at differt caule elatiori 2-pedali vel ultra, foliis (ramorum floralium) multo majoribus (3-5 poll. longis, 1½-2 poll. latis) basi late rotundatis vel subcordatis minus rugosis supra viridibus subtus incanescens utrinque pubescentibus nec lanatis, racemis densioribus, floribus sæpius majoribus, calycibus magis hirtis. Folia ramorum steriliū et primordialia ramorum floriferorum minora et sæpe lanata, sed basi semper latiora quam in *S. officinali*.

In var. *β* statura humilior, folia minora et magis incana, at semper basi lato-rotundata v. cordata.

6. *S. CONFUSA*, caule fruticoso basi sublanato, ramis floriferis tomentoso-pubescentibus, foliis petiolatis plerisque interrupte pinnatisectis rugosis subtus albo-lanatis, segmento extremo maximo oblongo lanceolato basi angustato, lateralibus utrinque 1-2 oblongo-lanceolatis basi rotundatis, floralibus bractæformibus deciduis, racemis elongatis, verticillastris multifloris remotis, calycibus campanulatis submembranaceis coloratis striatis pubescentibus, labio superiore tridentato, inferiore bifido, dentibus omnibus subulato-acuminatis, corollis calyce duplo triplove longioribus, tubo amplo exserto, labiis erectis, superiore recto, inferioris lobis lateralibus reflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis connatis.

S. aurita. *Schultes Obs. Bot. 10. ? non Thunb.*

Hab. in Europa australi? (*h. s. et v. v. c.*)

In hortis Gallicis sæpe occurrit sub nomine *S. trilobæ*, *S. interruptæ*, vel *S. officinalis foliis pinnatis*, et si *S. cretica*, *grandiflora*, et *crassifolia* cum *S. officinali* jungantur, hæc etiam pro mera varietate ejusdem speciei habenda est; sed meo sensu distincta est caule elatiori, racemo fere pedali vel ultra, verticillastris numerosis, foliis multo majoribus pinnatisectis, segmento extremo duplo longiore et triplo latiore quam folia *S. officinalis*, et apice angustatis acutis nec obtusiusculis. A *S. triloba et interrupta* (sub cujus nomine mecum communicavit cl. Delile e horto Monspessulano) abunde differt calycibus tenuiter pubescentibus nec viscosis, habitu, et characteribus aliis supra notatis. In herbario Banksiano occurrit sub nomine *S. officinalis auritæ*. An *S. auriculata* Mill?

7. *S. TRILOBA* (Linn. Fil. ! Suppl. 88.), caule fruticoso ramisque albo-lanatis, foliis petiolatis ovatis obtusis rugosis crassis subtus albo-lanatis basi cordatis auriculatis vel segmentis distinctis parvis ovato-rotundatis 1-2 adjectis, floralibus membranaceis deciduis, racemis abbreviatis subpaniculatis viscosis, verticillastris 6-10-floris distinctis, calycibus tubuloso-campanulatis striatis villosis viscosis, labio superiore tridentato, inferiore bifido, dentibus omnibus ovatis acutiusculis, corollis calyce subtriplo longioribus, tubo amplo exserto, labio superiore recto, inferiore subpatente, lobis reflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis approximatis liberis.

S. quinquefolia. *Riv. Monop. Irr. t. 131.*

S. auriculata. *Mill. Dict. n. 3. ?*

S. fruticosa. *Mill. ! Dict. n. 5.*

S. sipylea. Lam.! *Ill. Gen.* 1. 68.

S. baccifera. Etzl. *Salv.* 4.

S. marrubiioides. Vahl! *Enum.* 1. 223. (*specimen hortense monstruosum verticillastris axillaribus.*)

S. Clusii. Jacq. *Hort. Schænbr.* 2. 37. t. 195?*

S. subtriloba. Schranck in *Syll. Pl. Soc. Ratisb.* 2. 58?†

S. triloba. Sm. et Sibth. *Fl. Gr.* 1. 13. t. 17.

Hab. in regionis Mediterraneæ et orientalis Ponticæ collibus siccis apricis, &c.: in Sicilia *Gussone*, in Calabria orientali *Tenore*, in insulis Archipelagi et in omni Græcia frequens *Durville!* *Sibthorp!* in ins. Melos et Naxos *Zuccarini!* in Syria *Vahl*, ad *Macri Clarke!* (*h. s. c. et v. s. sp. in herb. plur.*)

Hanc speciem etiam a cel. Delile accepi sub nomine *S. officinalis auritæ*, at præter foliorum formam et habitum a *S. officinali* semper distinctissima est calycibus multo minoribus racemique axe viscoso-villoso, racemis abbreviatis paniculatis, &c. Caulis sæpius divaricato-ramosus, uti folia lana densa alba vestitus. Folia 1-1½-pollicaria, sæpe integra, nunc segmentis duobus parvis lateralibus sæpe vix a terminali distinctis auriculata. Floralia membranacea dense villosa, decidua. Calyces 3 lineas longi, dentibus brevibus extus dense villosis, glanduloso-viscosi, purpurascens. Corolla rubro-violacea, extus glabra, tubo medio intus piloso-annulato. Stylus exsertus, glaber, breviter bifidus.

8. *S. INTERRUPTA* (Schousb.! *Beob. Marok.* 7. t. 1), caule fruticoso, ramis viscoso-villosis, foliis petiolatis irregulariter pinnatisectis rugosis subtus albido-tomentosis, segmento extremo maximo lateraliumque paribus 1-2 ovato-oblongis basi rotundatis, segmentis aliis minimis rotundatis interjectis, floralibus membranaceis deciduis, racemo simplici, verticillastris subsexfloris remotis, calycibus tubuloso-campulatis striatis villosis-viscosis, labio superiore tridentato, inferiore bifido, dentibus omnibus acutis, corollis calyce duplc triplove longioribus, tubo exserto ampliato, labio superiore recto, inferiore maximo, lobis reflexis, medio latissimo, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis subconnatis.

S. interrupta. Jacq. *Fragm.* 61. t. 90? *Brit. Fl. Gard.* 2. t. 169.

Hab. in Africa boreali: in provinciis australioribus regni Marocani *Schousboe.* (*h. s. c. et v. s. sp.*)

Caules 3-4-pedales, inferne glabrati, superne pilis apice glanduliferis villosi. Folia cum petiolo 4-6-pollicaria vel ultra, constanter pinnatisecta, segmentis majoribus conformibus crenulatis, extremo sæpe 2-3-pollicari, lateralibus fere duplo minora, intermedia minima (1-3-linearia). Racemus 1-2-pedalis. Verticillastri inferiores sæpe 2-3 pollices distantes. Folia floralia ovato-acuminata, membranacea, decidua, calyce duplo breviora. Bractæ minutæ. Calyces post anthesin campanulati, labio superiore recurvo-patente. Dentes breves. Corolla speciosa, cærulescenti-albida, labium superius extus pubescens. Stylus exsertus, glaber, breviter bifidus.

* This figure gives much better the habit of *S. confusa*, and the description in the text agrees also in many respects with the characters of that species; but the calyxes appear to have the hairiness and the less-acute teeth of *S. triloba*. I never, it is true, saw any cultivated specimens of *S. triloba* with leaves so large and so acute as they are represented by Jacquin; but his drawings are generally taken from individuals of extraordinary dimensions, so that, without seeing the specimens themselves, it is impossible to refer the *S. Clusii* to either of the above species with certainty.

† “*S. tomentosula*, foliis petiolatis rugosis crenatis integris, inferioribus sæpius auriculatis, calyce bilabiato, labio superiore tridentato, inferiore bifido.

“Frutex, corollæ albæ (*S. trilobæ* sunt pallide lilacinæ), tomentum tenuissimum seu potius pili minimi valde stipati plantam omnem investiunt. Odor ut in *C. officinali*. Ex seminibus constans est.”—*Schranck. l. c.*

In hortis sæpe occurrit sub nomine *S. pinnatæ* vel *S. rosæfoliæ*, sed ab utraque distincta.

9. *S. RINGENS* (Sibth. et Sm. ! Fl. Gr. 1. 14. t. 18), ramis viscoso-villosis, foliis petiolatis irregulariter pinnatisectis, segmentis inæqualibus ovato-oblongis basi rotundatis utrinque villosis subtus vix canescentibus, floralibus membranaceis deciduis, racemo simplici, verticillastris subsexfloris laxis remotis, calycibus nutantibus tubuloso-campulatis striatis villosis-viscosis, labio superiore breviter tridentato, inferiore bifido, dentibus omnibus acutiusculis, corollis calyce triplo quadruplove longioribus, tubo exserto ampliato recurvo-adscendente, fauce amplissima, labio superiore erecto subfalcato, inferiore maximo, lobis reflexis, medio latissimo, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis subconnatis.

Hab. in Græciæ declivibus petrosis montium non infrequens *Sibthorp* ! (v. s. sp. in herb. *Lambert*.)

Caules 1-2-pedales, basi glabrati. Petioli longe ciliati. Folia fere *S. interruptæ*, a qua corollis maximis recurvo-adscendentibus distinctissima.

10. *S. PINNATA* (Linn. ! Spec. 39), caule herbaceo erecto piloso, foliis pinnatisectis, segmentis 3-4-jugis petiolulatis ovatis inciso-crenatis rugosulis villosis, racemis simplicibus, verticillastris subsexfloris remotis, foliis floralibus bracteisque membranaceis ovatis acuminatis calyce brevioribus deciduis, calycibus urceolatis truncatis piloso-lanatis, labio superiore tridentato, inferiore bifido, dentibus omnibus brevissimis acutis, corollis calyce triplo longioribus, tubo longe exserto superne subampliato, labio superiore recto, inferioris lobis lateralibus deflexis, medio maximo, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis approximatis liberis.

Hab. in Europa australi præsertim orientali : in Hispania *Pavon* ! in arvis pascuis Smyrnæ *Fleischer* ! in Oriente *Vahl* ! *Stuart* ! in Arabia *Linnaeus*. (h. s. sp.)

Tota pilis longis albidis lanata et breviter viscoso-villosa. Caules 1-2-pedales, basi foliosi. Folia minora quam in *S. interrupta*, at segmenta numerosiora, vix inæqualia vel segmentis minimis rotundatis paucis interjectis. Calyces pedicellati, latitudine longitudinem subæquantes. Corollæ pulchræ, ultrapollicæres, purpureæ.

Species foliis pinnatis *S. interruptæ* affinis, calyce *S. nubicolæ*.

11. *S. INCARNATA* (*Vahl* ! Enum. 1. 226. non Cav. an *Ettling*. *Salv.* n. 15 ?), caule herbaceo erecto piloso, foliis pinnatisectis, segmentis 2-3-jugis subsessilibus ovatis crenatis rugosis villosis, racemis simplicibus, verticillastris 2-6-floris remotis, foliis floralibus membranaceis ovatis acuminatis calyce brevioribus deciduis, calycibus campanulatis piloso-lanatis, labio superiore tridentato, inferiore bidentato, dentibus omnibus ovatis acutis, corollis calyce vix duplo longioribus, tubo calycem æquante, labio superiore recto, inferioris lobis lateralibus deflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis liberis ?

Hab. in Oriente *Vahl* ! (v. s. c. in herb. plur.)

Habitus *S. pinnatæ*, a qua floribus differt ; a *S. rosæfoliæ* habitu, caule erecto, et bracteis distincta.

12. *S. ROSÆFOLIA* (Sm. ! Ic. 1. 5. t. 5), caule basi procumbente, ramis adscendentibus pubescentibus, foliis pinnatisectis 2-3-jugis, seg-

mentis petiolulatis oblongis utrinque angustatis supra villosis subtus cano-pubescentibus, floralibus ovato-lanceolatis coloratis calycem æquantibus, racemis abbreviatis, verticillastris 2-3-floris distinctis, calycibus campanulatis coloratis, labio superiore 3-dentato, inferiore bidentato, dentibus omnibus ovatis acutis, corollis calyce subduplo longioribus, tubo calycem æquante amplo intus annulato(?), labio superiore recto, inferioris lobis lateralibus deflexis, medio emarginato-bifido.

S. orientalis. *Mill. Dict. n. 8?*

Hab. in Armenia *Vahl!* Oriente *Tournefort!* Persia *Pallas!* (*v. s. sp. in herb. Banks, Vahl, et Lambert.*)

Suffrutex(?) humilis, vix palmaris, basi ramosus, ramis pilis albidis pubescentibus. Petioli ciliati. Folia cum segmento ultimo 3 poll. longa, segmento semipollicari, lateralibus angustioribus. Calyx amplus, fere *S. officinalis*. Corolla purpurea(?). Calyces et bractæ purpurascens.

“Variat foliis lanceolatis ultimis sæpe confluentibus.”—*Vahl.*

13. *S. BRACTEATA* (Russ. Nat. Hist. Alep. 2), caule herbaceo erecto pubescente, foliis pinnatisectis, segmentis 2-3-jugis sessilibus oblongis acutis crenato-serratis basi angustatis utrinque tomentoso-villosis, floralibus latissimis ovatis acuminatis integerrimis persistentibus flores amplexantibus calyce longioribus, racemis simplicibus, verticillastris sub-10-floris remotis, calycibus sessilibus campanulatis basi membranaceis, labiis villosis, superiore tridentato, inferiore 4-dentato, dentibus omnibus lanceolatis, corollis calyce duplo longioribus, tubo amplo incluso.

Hab. in Syria prope Aleppo *Russell!* (*v. s. sp. in herb. Banks.*)

Caulis pedalis sesquipedalisve. Folia 2-4-pollicaria, segmento ultimo majore. Folia floralia fere *S. sclareæ*, basi membranaceo-albida. Verticillastri densi. Corolla purpurascens.

14. *S. SCABIOSÆFOLIA* (Lam.! Journ. Hist. Nat. n. 14. 44. t. 27), caule herbaceo, ramis diffusis piloso-lanatis, foliis pinnatisectis, segmentis subgeminatis integris bisectis vel pinnatisectis oblongis linearibusve acutis integerrimis, racemis simplicibus, verticillastris 6-10-floris distinctis, foliis floralibus persistentibus lanceolatis ovatis vel ovato-rotundatis acuminatis, calycibus ample campanulatis striatis villosis, labio superiore brevissime tridentato, inferiore bifido, dentibus ovatis acutis, corollis calyce duplo longioribus, tubo amplo breviter exserto, labio superiore recto bifido, inferiore amplo, lobis rotundatis deflexis, medio lato emarginato, connectivis postice porrectis dilatatis utrinque antheriferis, loculis posterioribus cassis connatis.

S. pinifolia. *Pall. Ind. Taur.*

S. taurica. *Habl. Phys. Besch. Taur. 207.*

S. scabiosa. *Pers. Syn. 1. 29.*

S. Habliziana. *Willd. in Schrad. Journ. Bot. 1. 289. t. 2. Jacq. Fil. Ecl. 1. 9. t. 3. Bot. Mag. 35. t. 1429.*

S. vulnerariæfolia. *Willd. Spec. 1. 149.*

Hab. in regione Pontica: in clivis Tauriæ circa Achmetchet et Bachtchisarai *Pallas!* circa Karassubazar frequens *Bieberstein*, et in Armenia *Vahl.* (*h. s. sp. et v. v. c.*)

Caules diffusi, 1-1½-pedales, basi patentim pilosi vel lanati, superne subglabri, sæpe purpurascens. Folia numerosa, nunc fere glabra, sæpius canescentia et pilosa; segmenta 3-5-juga, sæpius geminata vel ternata, at opposita, et inde quasi verticillata. Racemus 4-6-pollicaris vel ultra. Folia floralia inferiora ovato-

lanceolata, calyces superantia, superiora latiora breviora. Calyces fructiferi 7-8 lineas longi, breviter pedicellati, erecti, molliter piloso-pubescentes, dentibus abbreviatis. Corollæ pulchræ, albidæ, tubo intus piloso-annulato. Stylus breviter exsertus.

Variat foliis sæpe angustissimis glabrioribus, verticillastris nunc omnibus 6-floris, nunc 10-floris vel ultra. Variat etiam magnitudine et forma foliorum floralium.

SECTIO II. HYMENOSPHERE.

Hymenosphace. *Benth. in Hook. Bot. Misc. 3. 373.*

Calyx campanulatus, labio superiore 2-3-fido, inferiore bifido, lobis omnibus subæqualibus post anthesin membranaceo-dilatatis venosis. Corollæ tubus amplus intus piloso-annulatus. Labium superius sub-falcatum compressum, inferioris lobi laterales patentes. Connectiva postice porrecta, loculum difformem cassum ferentia, extremitate sub-connexa.—Frutices vel rarius herbæ, sæpius incanæ. Habitus Eusphacium, præsertim species Mediterraneæ et Canariensis. Capenses duriores sunt et magis lignosæ.

15. *S. LINKIANA* (Rœm. et Schult. Syst. Mant. 1. 182), herbacea? ramis adscendentibus tomentosis, foliis pinnatisectis, segmentis 2-3-jugis sessilibus oblongo-lanceolatis obtusiusculis crenatis basi angustatis rugosis supra pubescentibus subtus molliter villosis, floralibus lato-ovatis obtusis integris calyces subæquantibus, racemis simplicibus, verticillastris multifloris, calycibus breviter pedicellatis molliter villosis, labiis membranaceo-dilatatis venosis subcoloratis, superiore lato sinuato, inferiore bifido, lobis ovato-rotundatis, corollis calyce duplo longioribus, tubo amplo subexserto, labio superiore recto, inferioris lobis latis lateralibus reflexis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus connatis.

S. pilantha. Link! Enum. 1. 10.

Hab. in Oriente? (*h. s. c.*)

Rami 2-3-pedales, pallide virentes vel subcanescentes et molliter villosi. Folia fere *S. incarnatæ*, sed angustiora, segmento extimo circiter 2-pollicari, summa in petiolum decurrentia, omnia supra pallide virentia, subtus canescentia. Racemus pedalis, molliter villosus. Bracteæ parvæ, oblongæ vel 1-2 exteriores foliis floralibus conformes. Calyx 7-8 lin. longus, basi striatus, submembranaceus, sed virens vel apice pallide purpurascens. Corolla cœrulea, labio superiore extus piloso, magnitudine corollæ *S. scabiosæfoliæ*, cui hæc species habitu affinis, sed calyx *Hymenosphacium*.

16. *S. ACETABULOSA* (Vahl! Enum. 1. 227), caule suffruticoso adscendente piloso, foliis inferioribus pinnatisectis, segmentis 1-2-jugis superioribusque integris oblongis obtusis rugosissimis utrinque villosis subtus canescentibus, floralibus inferioribus conformibus superioribus membranaceis calycem subæquantibus, racemis simplicibus, verticillastris sub-10-floris, calycibus ample campanulatis piloso-hispidis, labiis membranaceo-dilatatis venosis coloratis, superiore integro, inferiore bifido.

Hab. in Oriente *Vahl!* (*v. s. sp. in herb. Vahl.*)

Affinis *S. Moluccellæ*, sed foliis pinnatis et calycibus hispidis diversa. Calyx fructifer maximus. Corolla glabra.

17. *S. POMIFERA* (Linn. ! Spec. 34), caule fruticoso, ramis cano-tomentosis, foliis petiolatis ovato-oblongis obtusis basi rotundatis vel subcordatis margine crenulatis undulato-crispis rugosis canis, floralibus calyce brevioribus supremis bracteisque membranaceis deciduis, racemis subramosis, verticillastris subsexfloris distinctis, calycibus ample campanulatis basi pubescentibus substriatis, labiis membranaceo-dilatatis venosis coloratis, superiore latissimo subintegerrimo vel sinuato, inferiore bilobo, lobis obovato-rotundatis obtusis mucronulatis, corollis calyce duplo longioribus, tubo amplo subexserto, labio superiore subrecto, inferioris lobis deflexis, medio latissimo, connectivis postice porrectis utrinque antheriferis, loculis posterioribus difformibus subconnatis.

S. crispa. Rivin. Monop. Irr. t. 125.

S. frugifera. Etzl. Salv. n. 5.

S. pomifera. Sibth. et Sm. Fl. Gr. 1. 12. t. 15.

Hab. in Oriente *Tournefort* ! in Cretæ collibus apricis et asperis *Sibthorp* ! &c. in Græcia vulgaris *Hawkins*, in Palæstina et Syria *Vahl* ! (h. s. c. et v. s. sp.)

Frutex 2-3-pedalis, basi rubescens, ramis petiolisque albo-tomentosis. Folia 2-3-pollicaria, in speciminibus spontaneis vix semipollicem, in cultis fere pollicem lata, utrinque albido-tomentosa, margine plus minusve undulato-crispa. Racemi breves, sæpius ramis utrinque 2-3, verticillastris glomeratis sæpius 3-4-floris. Folia floralia lato-ovata, acutiuscula. Calyces subsessiles, fructiferi semipollicares et ultra, latissime campanulati. Corolla cœruleo-violacea, fere sesquipollicaris, extus glabra vel tenuiter pubescens. Tubus supra ovarium contractus, intus piloso-annulatus, superne amplissimus. Labia ringentia, superius 8-9 lin. longum, latum, subcompressum, rectum vel subfalcatum, inferius latissimum, lobis rotundatis. Stamina sterilia brevia, filiformia, apice clavata, fertilium filamenta ad medium corollæ labii superioris attingentia, connectivis brevibus medio affixis. Stylus vix exsertus, glaber, apice breviter bifidus.

18. *S. CALYCINA* (Sibth. et Sm. ! Fl. Gr. 1. 13. t. 16), caule fruticoso, ramis erectis cano-tomentosis, foliis petiolatis ovatis obtusis basi cuneatis rotundatis vel subcordatis crenulatis subplanis rugosis canis, floralibus calyce brevioribus supremis bracteisque membranaceis deciduis, racemo abbreviate subramoso, verticillastris 2-6-floris remotis, calycibus ample campanulatis basi striatis pubescentibus, labiis membranaceo-dilatatis venosis, superiore latissimo integro sinuato vel brevissime 3-mucronato, inferiore bilobo, lobis obovato-cuneatis, corollis calyce duplo longioribus, tubo amplo vix exserto, labio superiore recto, inferioris lobis deflexis, medio latissimo, connectivis postice porrectis utrinque antheriferis, loculis posterioribus difformibus subconnatis.

S. peregrina Rauwolfii. Gessner ed. Schmiedel 1. t. 12. f. 103. ex Rœm. et Schult.

Hab. in Græcia: in monte Hymetto prope Athenas *Swainson* ! *Sibthorp* ! in monte Poros *Zuccarini* ! et in collibus apricis et maritimis insulæ Sami ad urbem Vathi *Durville* ! (h. s. c. et v. s. sp.)

Valde affinis *S. pomiferæ*, a qua differt foliis brevioribus latioribus planis, calycibus minoribus basi magis striatis et villosioribus, labiis minus dilatatis, corollis sæpius majoribus. An revera distincta ?

19. *S. MULTICAULIS* (Vahl Enum. 1. 225).

Hab. in Oriente *Vahl*.

“ *S. tomentosa*, foliis subcordato-oblongis obtusissimis crenatis, calycibus hirtis, bracteis lanceolatis, caule herbaceo.

“Caules plures, erecti, semipedales, basi foliosi, uti tota planta tomentoso-incani, superne inter verticillos pilosi. Folia petiolata, semipollicaria, venoso-subrugosa. Petioli folio longiores, incani, pilosi. Verticilli distantes, sexflori. Bracteæ calyce breviores. Calyx fructifer campanulatus, magnus, membranaceus, venosus, laciniis rotundatis.”—*Vahl. l. c.*

Ex descriptione valde affinis est *S. calycinæ*, a qua differre videtur caule herbaceo humili, foliis caulinis minoribus et floralibus lanceolatis.

20. *S. MOLUCCELLÆ*, caule herbaceo erecto pubescente, foliis longe petiolatis ovatis obtusis crenatis basi cordatis rugosissimis utrinque pubescentibus, junioribus canescentibus, floralibus calyce brevioribus supremis bracteisque membranaceis deciduis, racemis elongatis simplicibus, verticillastris remotis 6-10-floris, calycibus subsessilibus campanulatis basi striatis pubescentibus, fructiferis amplissimis, labiis membranaceo-dilatatis, superiore minuto subtridentato, inferiore bilobo, lobis obtusissimis.

Hab. in Syria prope Aleppo *Russell!* (*v. s. sp. in herb. Banks.*)

A *S. calycina* differt foliis rugosioribus vix tomentosis basi cordatis, et præcipue racemis elongatis palmaribus vel fere pedalibus, verticillastris densis remotis. Caulis basi perennis, repens. Rami erecti, pedales et ultra. Calyces maximi, fere *Moluccellæ lævis*. Corollas non vidi. An *S. multicaulis*? sed hæc ex descriptione tota tomentosa incana.

21. *S. AUREA* (Linn.! Spec. 38.) caule fruticoso, ramis cano-tomentosis, foliis petiolatis ovato-subrotundatis obtusis integerrimis sinuatisve coriaceis incanis, floralibus sessilibus villosis persistentibus, racemis abbreviatis subramosis, verticillastris bifloris approximatis, calycibus ample campanulatis villosis, labiis membranaceo-dilatatis venosis coloratis, superiore subintegerrimo lato-rotundato, inferiore emarginato vel bifido, lobis ovato-rotundatis, corollis calyce triplo longioribus, tubo calycem vix superante, labio superiore maximo subfalcato-compresso, inferiore brevioris patente, lobis rotundatis subreflexis, connectivis postice abbreviatis subdeflexis dilatatis antheræ loculum minimum cassum ferentibus.

S. africana, &c. *Comm. Hort. Amst.* 2. 183. t. 92.

S. colorata. *Linn. Syst.* 71? non *Vahl.*

S. aurea. *Bot. Mag.* 6. t. 182.

Hab. in Africa australi: ad Caput Bonæ Spei *Forbes! Burchell!* &c. et ad sinum Algoa *Forbes!* (*h. s. sp. et v. v. c.*)

Frutex pluripedalis, totus albido-tomentosus. Folia semipollicaria vel vix pollicaria, rigidula, molliter albido-tomentosa. Racemi densi, 2-4-pollicares, verticillastris vix distinctis, axi, foliis floralibus, calycibusque hispido-villosis. Folia floralia calyce triplo quadruplove breviora. Calyces floriferi semipollicares, fructiferi sæpe ultra pollicares, lobis maximis glabratis reticulato-venosis. Corolla pulcherrima, aurea, tubo ampliato basi contracto intus piloso-annulato, labii inferioris lobo medio emarginato. Genitalia labium superius corollæ subæquantia. Filamenta dilatata, abbreviata.

22. *S. AFRICANA* (Linn.! Spec. 38.) caule fruticoso apice paniculato, ramis canescentibus, foliis subsessilibus ovatis oblongis obovatis cuneatisve acutis integerrimis vel sinuato-dentatis basi angustatis supra glabriusculis subtus albidis coriaceis rigidis, floralibus bracteisque lato-ovatis subpersistentibus, racemis subramosis, verticillastris 2-6-floris distantibus, calycibus campanulatis hispido-villosissimis, labiis demum membranaceo-dilatatis, superiore subintegro lato-rotun-

dato, inferiore bifido, lobis ovatis acutis, corollis calyce duplo longioribus, tubo calycem vix superante ampliato, supra basin contracto intus piloso annulato, labio superiore subrecto, inferiore patente, lobis subreflexis, connectivis postice abbreviatis porrectis dilatatis antheræ loculum cassum ferentibus.

S. africana. Commelin Hort. Amst. 2. 181. t. 91. Mill. Ic. t. 225. f. 1.

S. colorata. Vahl! Enum. 1. 230.

S. integerrima. Mill. Ic. t. 225. f. 2. Dict. n. 12.

S. barbata. Lam. Illustr. 1. 72.

Hab. ad Caput Bonæ Spei! (*h. s. sp.*)

Frutex ramosissimus, basi purpurascens, ramis canescentibus. Folia forma variabilia, nunc spathulata, obtusa, sæpius ovata vel oblonga, acuta, fere semper mucronulo acuminata, rarius dentata, duplo minora quam in *S. aurea*, supra sæpius viridia, subtus constanter albida. Calyces duplo minores quam in *S. aurea*, basi villosissimi, lobis labii inferioris acutis, post anthesin vix elongati, at sæpius apice latissime membranacei. Corollæ 7-8 lin. longæ, labiis subæqualibus, violaceæ. Tubus intus piloso-annulatus. Genitalia exserta.

Hujus varietatem e Horto Hamburgensi accepi sub nomine *S. obtusæ*. Specimen meum mancum differt a specie foliis latioribus obtusioribus rugosulis crenulatis et basi hinc inde inciso-dentatis. Cæterum omnino *S. africana*. Specimen alterum in herb. Burchelliano vidi (Cat. Geogr. n. 1019), quoad folia inter hanc varietatem et *S. africanam* veram medium. Calyces minus dilatati videntur, sed meo sensu non a specie separandum est.

23. *S. PANICULATA* (Linn., Mant. 25 et 511), caule fruticoso, ramis scabris glabriusculis, foliis petiolatis obovatis acutis subdentatis coriaceis utrinque viridibus subtus scabris, floralibus ovatis membranaceis deciduis, racemis paniculato-ramosis, verticillastris 2-floris distinctis, calycibus campanulatis scabris, labiis demum membranaceis subdilatatis, superiore integro rotundato, inferiore bifido, lobis ovatis acuminatis, corollis calyce subtriplo longioribus, tubo calycem æquante, labio superiore subrecto, medio brevioris patente, lobis rotundatis subreflexis, connectivis postice abbreviatis porrectis dilatatis antheræ loculum cassum ferentibus.

S. chamæelæagnea. Berg. Cap. 1. 3.

S. minor, &c. Breyn. cent. 1. 169. t. 85.

Hab. ad Caput Bonæ Spei! (*h. s. sp.*)

Frutex erectus, purpurascens, nec incanus, scaber. Folia semipollicaria, basi angustata, apice serrata, glabra vel nervis villosis, majora quam in *S. africana*, et utrinque viridia, scabriuscula. Calyces *S. africanæ*, sed glabriusculi, fructiferi minus dilatati. Corolla *S. africana* paullo major, forma potius *S. aureæ*, sed duplo minor, purpureo-violacea. Tubus intus piloso-annulatus. Genitalia exserta.

24. *S. DENTATA* (Ait. Hort. Kew. 1. 37), caule fruticoso glabro, foliis linearibus fasciculatis remote dentatis glabriusculis, floralibus bracteisque ovatis calyce multo brevioribus persistentibus, racemis simplicibus abbreviatis, verticillastris 2-6-floris, calycibus ample campanulatis pubescentibus basi striatis, labiis demum membranaceis dilatatis reticulato-nervosis, superiore sinuato sub-3-dentato, inferiore bifido, dentibus ovatis obtusiusculis, corollis calyce subduplo longioribus, tubo calycem æquante, labio superiore subrecto, inferiore ei æquali patente, lobis rotundatis subreflexis, connectivis postice abbreviatis dilatatis antheræ loculum cassum ferentibus.

S. rigida. Thunb. Prodr. Fl. Cap. 1. 96.

Hab. ad Caput Bonæ Spei *F. Masson* ! (v. s. sp. in herb. Banks.)

Frutex humilis, ramis tetragonis sæpius glabris semipedalibus. Folia ramorum juniorum in axillis fasciculata, longiora vix pollicaria, nunc anguste linearia integerrima, sæpius hinc inde dentata, interdum lanceolata profunde dentata, coriacea, dura, vix incana, floralia 2-3-linearia, vix bracteis majora, suprema pubescentia. Racemi 1-2-pollicares, verticillastris approximatis at distinctis. Calyces forma et magnitudine *S. africanæ*, at brevissime (ut in *S. paniculata*) scabro-pubescentes. Corolla *S. africana* minor, purpureo-violacea? tubo ampliato intus versus medium piloso-annulato, labii inferioris lobo medio emarginato-bifido. Connectiva subtus sub insertione breviter dentata. Stylus breviter exsertus.

25. *S. NIVEA* (Thunb. Prodr. Fl. Cap. 96).

S. lanceolata. *Lam. Ill.* 1. 72. sec. *Vahl*.

Hab. ad Caput Bonæ Spei *Thunberg*.

"*S. foliis lanceolatis integerrimis albo-tomentosis, ramis divaricatis.*"—*Thunb. l. c.*

"Caulis erectus, 3-pedalis. Rami et ramuli decussati, tetragoni, sulcati, inferne glabri, superne tomentosi. Folia opposita, petiolata, acuta, parum rugosa, convoluta, nivea, patula, internodiis breviora, pollicaria. Axillæ ramulis foliiferis onustæ. Petioli vaginantes, sensim in folium dilatati, breves. Flores oppositi vel subpaniculati in apicibus ramulorum. Calyces hirti. Corollæ purpureæ, calyce duplo longiores. Similis *S. aureæ* et *chamæeleagnæ*, sed distinguitur facile foliis lanceolatis niveis."—*Thunb. Fl. Cap. MSS. ex Ræm. et Schult. Syst. Mant.* 1.

26. *S. CANARIENSIS* (Linn. ! Spec. 38), caule fruticoso albo-lanato, foliis petiolatis lanceolatis hastato-triangularibus rugosis subglabris, floralibus ovato-lanceolatis calyces superantibus membranaceis coloratis, racemis ramosis, verticillastris subsexfloris approximatis distinctis, calycibus incurvo-campanulatis, labiis membranaceo-dilatatis, superiore sinuato subtrilobo, inferiore bifido, laciniis obtusis mucronatis, corollis calyce plus duplo longioribus, tubo incluso ampliato, labiis subæqualibus subrectis, superiore subfalcato, inferioris lobis lateraliter deflexis, connectivis postice subdilatatis antheræ loculum cassum ferentibus.

Sclarea tomentosa. *Mill. Dict. n.* 13.

Schraderia hastata. *Mæench. Meth.*

Hab. in ins. Canariensibus *Chr. Smith* ! &c. etiam in Sicilia sponte at non indigena *Gussone*. (*h. s. c. et v. s. sp.*)

Frutex orgyalis, in hortis sæpe cultus, foliis hastatis et caule dense lanato distinctissimus. Folia floralia et calyces membranaceo-colorati. Corollæ purpurascens.

SECTIO III. DRYMOSPHERE.

Drymosphere. *Benth. in Hook. Bot. Misc.* 3. 373.

Calyx tubulosus vel campanulatus, labio superiore subintegro truncato vel brevissime tridentato. Corollæ tubus exsertus, intus piloso-annulatus, labium superius falcato-compressum, inferioris lobi laterales patentes. Connectiva postice porrecta, loculum difformem cassum ferentia, extremitate subconnexa.—*Herbæ Europææ vel Asiaticæ, virides subglutinosa, foliis plerumque amplis hastato-cordatis, corollis flavis vel rarius cæruleis.*

27. *S. GLUTINOSA* (Linn. ! Spec. 37), caule herbaceo erecto glutinoso piloso, foliis petiolatis ovato-oblongis acuminatis dentatis

basi cordato-sagittatis, floralibus ovatis acuminatis calyce brevioribus, racemis simplicibus, verticillastris distantibus laxis 6-floris, calycibus tubulosis, labio superiore truncato integro subrecurvo, inferiore longiore, dentibus ovatis acutis, corollis calyce triplo longioribus, tubo exserto æquali intus pilosiusculo, fauce ampliata, limbo hiante, labio superiore falcato compresso, inferioris lobis lateralibus oblongis reflexis, medio lato-rotundato, connectivis postice liberis approximatis porrectis antheræ loculum cassum ferentibus.

Colus Jovis. *Besl. Hort. Eyst. æst. ordo 8. fol. 4. f. 1.*

Sclarea glutinosa. *Mill. Dict. n. 11.*

Hab. in Europæ et Asiæ mediæ sylvis umbrosisque: in Hispania! Gallia meridionali! Helvetia! Italia *Allioni, Bertoloni, Tenore!* Germania meridionali *Reichenbach*, Rossia meridionali! Tauria *Bieberstein*, promontorio Caucasico *Bieberstein, C. A. Meyer*, et in monte Beschtau, *C. A. Meyer. (v. v. et h. s. sp.)*

Herba elata, divaricato-ramosa, ex omni parte glutinosa. Folia inferiora ampla, sæpe 7-8-pollicaria, superiora minora, brevius petiolata, basi acuminato-sagittata, ad petiolum cordata vel lato-emarginata, utrinque glabra vel glutinoso-pubescentia. Flores sæpe sesquipollicares, pallide flavi. Stamina superiora vix abortientia, at parva, abbreviata, antheris sagittæformibus subcassis.

28. *S. NUBICOLA* (Wall.; Benth. in Wall. Pl. As. Rar. 1. 68), caule herbaceo erecto villosa, foliis petiolatis ovato-lanceolatis crenatis utrinque pubescentibus, inferioribus basi hastato-cordatis, superioribus basi rotundatis vel angustatis, supremis floralibusque sessilibus ovatis acutis integerrimis, racemis subramosis, verticillastris laxis paucifloris remotis, calycibus campanulatis villosis, labio superiore integro dentibusque labii inferioris acutis, corollis calyce subtriplo longioribus, tubo exserto æquali intus piloso-annulato, fauce ampliata, labio superiore subfalcato, inferioris lobis lateralibus reflexis, genitalibus longe exsertis, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis connexis.

S. nubicola. Sweet. Brit. Fl. Gard. 2. t. 140.

Hab. in Indiæ Orientalis montibus Kamaonensibus et Srinaghurensibus *Wallich!* et in valle Cashmeriano et ad Kidarkonta *Royle!* (*h. s. sp. e Mus. Angl. Ind.*)

S. glutinosæ affinis, sed diversa foliis angustioribus minoribus, floralibus majoribus, caulinis supremis subconformibus, calycis lobis subæqualibus, corollis minoribus, labio superiore vix falcato, genitalibus longissimis, et pubescentia tota subhispida nec glutinosa.

29. *S. HIANs* (Royle; Benth. in Hook. Bot. Misc. 3. 373), caule herbaceo erecto villosa, foliis longe petiolatis lato-ovatis basi late cordato-sagittatis, floralibus ovatis acuminatis calyce brevioribus, racemis subramosis, verticillastris sexfloris, calycis campanulati striati colorati glutinosi labio superiore integro truncato, inferiore longiore, dentibus ovatis acutis, corollis calyce triplo longioribus, tubo exserto, fauce ampliata, limbo hiante, labio superiore falcato compresso, inferiore lato-patente, connectivis postice porrectis utrinque antheriferis, loculis posterioribus cassis subconnexis.

Hab. in valle Cashmeriano *Royle!* (*v. s. sp. in herb. Royle.*)

Species pulchra, affinis *S. glutinosæ*, sed racemis brevioribus ramosis densi-

floris, et calycibus campanulatis cœrulescentibus abunde distincta. Corolla speciosa, cœrulea. Stamina breviter, stylus longe exsertus. Connectiva postice brevia.

30. *S. CAMPANULATA* (Wall.; Benth. in Wall. Pl. As. Rar. 1. 67), caule herbaceo adscendente hirsuto, foliis longe petiolatis amplis ovatis acutis inciso-crenatis basi cordatis utrinque hispidulis, floralibus ovatis acutis calyce brevioribus, racemis subramosis, verticillastris subsexfloris remotis, calycibus breviter pedicellatis ample campanulatis truncatis villosis, labio superiore brevissimo subintegro dentibusque labii inferioris lato-ovatis acutis, corollis calyce dimidio longioribus, tubo ampliato incluso, labio superiore falcato, inferiore brevissimo, connectivis postice porrectis liberis approximatis antheræ loculum cassum ferentibus.

Hab. in India Orientali: in montibus Gossain Than Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Herba 1-2-pedalis. Folia 4-6 poll. longa et totidem lata. Racemi breves, laxi, subpaniculati, pauciflori. Calyx magnitudine *S. pinnatæ*. Corollas imperfecte examinavi, sed teste Wallichio similes corollis *S. nubicolæ* sunt. Tubus intus certe piloso-annulatus.

SECTIO IV. HORMINUM.

Horminum. Benth. in Hook. Bot. Misc. 3. 373.

Calyx tubulosus, labio superiore truncato subtridentato. Corollæ tubus sub fauce ampliatus vel ventricosus intus exannulatus, labium superius rectum concavum vel falcatum compressum, inferioris lobi laterales oblongi erecti subtorti, medius patens rotundatus. Connectiva postice deflexa, abrupte dilatata, extremitate callosa connexa.— *Herbæ regionis Mediterraneæ.*

31. *S. VIRIDIS* (Linn.! Spec. 34), caule herbaceo erecto villosa, foliis petiolatis ovali-oblongis basi rotundatis obtusis crenatis villosis, superioribus ovato-cordatis, floralibus latissimis acutis persistentibus calyce sublongioribus, supremis gradatim minoribus, racemis simplicibus, verticillastris distantibus subsexfloris, calycibus tubulosis villosis, fructiferis demum arcte reflexis plicato-striatis, labio superiore truncato breviter tridentato, inferioris dentibus lanceolatis acutis, corollis calyce vix tertia parte longioribus, tubo subincluso, labio superiore incurvo concavo, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis triangulari-dilatatis extremitate callosa connexis.

S. truncata. Willd. Enum. 1. 34.

S. Spielmanni. Scop. Del. Ins. 3. 31. t. 15. Jacq. Fil. Ecl. 1. 25. t. 15. Reichb. Icon. Bot. Eur. c. 6. 23. t. 532. non Willd.

S. viridis. Jacq. Ic. Rar. 1. 2. t. 4. Desf. Fl. Atl. 1. 20. t. 1. Sibth. et Sm. Fl. Gr. 1. 15. t. 19. Reichb. Icon. Bot. Eur. c. 6. 23. t. 531.

Horminum viride. Mænoch. Meth. 377.

β floribus violaceis.

Hab. in Europæ, Africæ et Asiæ regionis Mediterraneæ locis siccis, saxosis, argillosis, &c.: in Barbariæ collibus circa Tunetum Desfontaines et Tanger Salzmann! in Hispania? Italiæ arvis Uneliensibus Allioni, Genuæ Requien! Lucaniæ et Apuliæ pratis argillosis Tenore, in Dalmatia Portenschlag! in Græcia ad Caput Drepanum Sieber! Epidauro Zuccarini! Caramania et ins. Cypro Sibthorp! in Tauria? Panzer!

promontorio Caucasico præsertim occidentalis *Bieberstein*, et in montibus Taliusch *C. A. Meyer*. (*h. s. sp.*)

Herba nunc vix 2-3-pollicaris, sæpe, præsertim in var. β , pedalis vel ultra. Caulis erectus, parce ramosus, pilis patentibus villosus. Folia 1-2-pollicaria, sæpius exacte ovalia, obtusissima, regulariter crenata, superiora basi latiora, subcordata; floralia latissime cordata, acuminata, ciliata, omnia villosa, viridia. Calyces fructiferi sæpe ut in *Ocymo basilico* arcte reflexi, rigidi, profunde sulcati, striis acute prominentibus ciliatis. Flores parvi, albidi, vel in var. β violacei. Tubus corollæ intus nudus, sub fauce ampliatus. Genitalia inclusa. Connectiva edentula.

I can see no other difference between the *S. viridis* and *S. Spielmanni* than that the one is in its wild state grown as is usual in a dry soil; the other as cultivated in gardens.

32. *S. HORMINUM* (Linn.! Spec. 34), caule herbaceo erecto villosus, foliis petiolatis ovali-oblongis basi rotundatis vel cuneatis obtusis crenatis villosis, superioribus ovatis cordatis, floralibus latissimis acutis persistentibus calyce sublongioribus, supremis membranaceo-dilatatis coloratis comosis, racemis simplicibus, verticillastris distantibus sub-6-floris, calycibus tubulosis pubescentibus, fructiferis reflexis plicato-striatis, labio superiore truncato breviter 3-dentato, inferioris dentibus lanceolatis acutis, corollis calyce dimidio longioribus, tubo incluso, labio superiore incurvo concavo, inferioris lobis lateralibus erectis, connectivis postice deflexis triangulari-dentatis extremitate callosa connexis.

Horminum coloratum. Mæench. Meth. 376.

Horminum sativum. Mill. Dict. n. 5.

S. colorata. Thore Chl. Land. 17.

S. Horminum. Sibth. et Sm. Fl. Gr. 1. 15. t. 20.

Hab. in Europæ, Africæ et Asiæ regione Mediterraneo-Pontica ad margines agrorum, in dumetis, &c.: in Barbaria *Vahl*, in Italiæ agro Nicæensi *Allioni*, Apulia et Peucetia *Tenore*, in Dalmatia *Reichenbach*, in Græciæ arvis haud rara *Sibthorp*! ad Poros *Zuccarini*! in Syria circa Aleppo *Russell*! in Tauria! circa Karassubasar *Bieberstein*. (*h. s. sp. comm. a cl. Endlicher.*)

33. *S. FORSKÖLEI* (Linn.! Mant. 26), caule herbaceo subviscoso-viloso, foliis infimis petiolatis ample ovatis repando-crenatis basi auriculatis lobatisve villosis, caulinis paucis subsessilibus, floralibus late ovatis acuminatis persistentibus calyce multo brevioribus, racemis elongatis subsimplicibus, verticillastris 2-6-floris distantibus, calycibus tubulosis, labio superiore truncato minute 3-dentato, inferioris dentibus lanceolatis acutis, corollis calyce duplo longioribus, tubo exserto ampliato, labio superiore subrecto emarginato-bifido, connectivis postice deflexis liberis recurvo-dilatatis extremitate approximatis.

S. bifida. Forsk. Fl. Ægypt. Arab. 202.

S. Forskölei. Bot. Mag. 25. t. 988. Willd. Hort. Berol. t. 20. Sibth. et Sm. Fl. Gr. 1. 16. t. 21.

Hab. in Oriente *Forsköl*, in sylvis umbrosis Olympi, Bithyniæ et circa pagum Belgrad prope Constantinopolim *Sibthorp*! (*h. s. c. et v. s. sp. in herb. Lambert.*)

Caulis sesquipedalis, basi foliosus, superne subnudus, ramis utrinque sub racemo 1-2. Folia infima 3-4-pollicaria, basi subcordata et sæpius auriculato-lobata, superiora multo minora, floralia vix 3-4-linearia, viridia, villosa. Racemi axis pilis patentibus viscosis villosus. Verticillastri demum pollicem vel ultra remoti, sæpius 2-flori, rarius 4-6-flori. Pedicelli demum folia floralia superantes. Calyx 4-5 lin. longus, apice sæpe coloratus, nervis 3 labii superioris validioribus, viscoso-pubescentibus,

July 1833.

G G

suberectus. Corolla violacea, forma fere *Eusphacium*. Annulus in tubo nullus. Faux intus pubescens. Labium inferius variegatum, lobo medio deflexo emarginato-bifido. Connectiva postice subtus obtuse dentata.

SECTIO V. ÆTHIOPIS.

Æthiopis. *Benth. in Hook. Bot. Misc. 3. 373.*

Calyx campanulatus v. tubulosus, labio superiore tridentato, dentibus erectis, medio sæpe minimo. Corollæ tubus sub fauce ampliatus vel ventricosus, intus exannulatus, labium superius falcatum compressum, inferioris lobi laterales oblongi suberecti subtorti, medius patens rotundatus plerumque concavus emarginatus crenulatus. Connectiva postice deflexa, abrupte dilatata, extremitate callosa connexa.—Herbæ regionis Mediterraneo-Ponticæ et montium Asiæ mediæ. Folia et pars inferior caulis sæpe albo-lanatæ. Folia floralia persistentia erecta, verticillastos amplexentia, vel rarius pedunculo vix longiora. Panicula divaricato-ramosa, rarissime subsimplex.

34. *S. INDICA* (Linn.! *Spec. 37*), caule herbaceo erecto pilosiusculo, foliis petiolatis ovatis oblongisve acutis subdentatis basi late cordatis glabris, floralibus ovato-cordatis reflexis, racemis simplicibus, verticillastris 6-floris remotis, calycibus sessilibus campanulatis post anthesin inflatis, labiis truncatis, superiore tridentato, dentibus brevissimis approximatis, inferiore breviter bidentato, corollis calyce triplo longioribus, tubo vix exserto, fauce ampliata, labio superiore maximo falcato compresso, inferiore brevioris patente lobis rotundatis lateralibus reflexis, genitalibus exsertis, connectivis postice deflexis subdilatatis extremitate callosa connexis.

Sclarea indica. Mill. Dict. n. 9.

Salvia indica. Jacq. Hort. Vind. 1. 33. t. 78. Bot. Mag. 11. t. 395.

Hab. in India *Linnæus et Auct.* verosimiliter in montibus Persiæ vel Arabiæ. (*h. s. c.*)

Caulis elatus, angulatus, glaber vel pilis glutinosis villosus. Folia infima 3-5-pollicaria, anguste ovata, superiora latiora, suprema sessilia, floralia calyce breviora. Racemus sesquipedalis et ultra, verticillastris paucis remotissimis. Calyx magnitudine *S. pinnatæ*, fructifer membranaceo-venosus, viscoso-pubescens, inflatus, ut in *Lychnide apetala*. Corollæ pulcherrimæ, flavæ, purpureo-maculatæ, magnitudine *S. argenteæ*.

35. *S. COMMUTATA*, caule herbaceo erecto piloso-hispido, foliis petiolatis ovatis obtusis eroso-crenatis basi cordatis crassis tuberculoso-rugosissimis utrinque viridibus hispidis, floralibus pedunculo vix longioribus, racemo denso spicæformi, calycibus campanulatis hispidissimis, labiis patentibus, superiore breviter tridentato, dentibus erectis, corollis calyce subduplo longioribus, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate connexis.

S. dominica. Linn.! Spec. 35. non Swartz nec Auct.

S. Syriaca. Herb. Gouan, non Linn.

Hab. in Italia *Linnæus?* vel in Syria?* (*v. s. c. in herb. Linn., Gouan. nunc Hook. et Endlicher.*)

* *Linnæus* has two plants from the garden of Upsala — his *S. serotina*, for

Folia caulina numerosiora et minora sunt quam in cæteris hujus sectionis, vix sesquipollicaria. Racemus in specimine Linnæano pollicaris, ex verticillastris 3 dense approximatis constans. Specimina Gouaniana et Endlicheriana nondum florent.

36. *S. SYRIACA* (Linn.! Spec. 36), caule herbaceo glabriusculo superne paniculato tomentoso-pubescente, foliis petiolatis ovatis obtusis eroso-crenatis vel inciso-dentatis basi cordatis utrinque viridibus rugosissimis pubescentibus, floralibus late ovatis concavis persistentibus calyce dimidio brevioribus, racemis paniculatis, verticillastris distantibus 2-6-floris, calycibus campanulatis tomentosis, labio superiore tridentato, inferiore bifido, dentibus omnibus subæqualibus lanceolatis acutis, corollis calyce dimidio longioribus, tubo incluso ventricoso, labio superiore subfalcato, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa connexis.

Hab. in "Oriente et Palæstina *Hasselquist*" (*Linnæus*), in Syria prope Aleppo *Russell!* (v. s. sp. in herb. *Linn. Banks. et Vahl.*)

Affinis *S. odoratæ*, sed foliis viridibus, forma fere foliorum *S. pratensis* differt. Panicula fere *S. tingitanæ*, sed multo minor gracilior. Folia floralia et calyces duplo triplove minores, molliter tomentosi nec hispidi, minime spinosi. Corolla alba.

37. *S. ODORATA* (Willd.! Enum. Hort. Berol. 43), caule suffruticoso basi albo-lanato superne paniculato glabro, foliis petiolatis ovatis lanceolatis acuminatis irregulariter crenato-dentatis basi cordatis rugosis utrinque albo-tomentosis, superioribus sessilibus, floralibus pedicello brevioribus persistentibus, racemis paniculatis laxis, verticillastris remotis bifloris, calycibus campanulatis striatis pubescenti-hirtis, labio superiore ovato-patente, dentibus brevissimis subconniventibus, inferioris dentibus lanceolatis acuminatis, corollis calyce subtriplo longioribus, tubo calycem æquante ventricoso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice rhomboideo-dilatatis extremitate callosa connexis.

S. argentea. Hortul. non Linn.

S. albida. Jacq. Obs. 10. n. 73.

S. odorata. Jacq. Fil. Ecl. fasc. 2. 26. t. 16.

Hab. prope Bagdad *Willdenow.* (h. s. c.)

Caulis basi perennis vel suffruticosus, ramosus. Rami basi adscendentes, superne erecti, tetragoni, angulis obtusis callosis, basi lana alba laxa obtecti, superne glabri vel tenuissime pubescentes. Folia caulina infima longe petiolata, limbo tripollicari, 1-1½ poll. lata, margine eroso-dentata, utrinque lana laxa (at multo brevior quam in *S. argentea*) alba omnino obsecta, media sessilia, latiora, cordato-amplexicaulia, cæterum conformia, superiora sub panicula multo minora, et floralia minima, cordato-ovata, acuminata, integerrima, patentia, pubescentia, suprema membranacea. Panicula pedalis vel ultra, ramosissima. Verticillastri fere pollicem distantes. Flores breviter pedicellati, magnitudine *S. Sclareæ*. Calyx uti habitus *Æthiopidum*, sed dentes labii superioris fere ut in *Plethiosphaceis* brevissimi, subconniventes. Corolla alba, labii inferioris lobo medio flavescente, punctis paucis violaceis. Stylus exsertus, lobis brevibus æqualibus subulatis.

which he gives Italy as the habitation; and this one, called by him *S. dominica*, in the belief that it came from St. Domingo. The former is, however, a West Indian, and the latter evidently a Mediterranean species; which renders it probable that some mistake arose in the labels either of the seeds or of the plants themselves. No Italian botanists, however, mention the species here described.

38. *S. CANDIDISSIMA* (Vahl! Enum. 1. 278), caule herbaceo erecto albo-tomentoso, foliis petiolatis ovatis obtusis sinuato-dentatis basi cordatis crassis rugosis tomento albo utrinque densissime lanatis, floralibus latis acuminatis concavis persistentibus calyce subbrevioribus, racemis ramosis, verticillastris 6-10-floris, supremis abortientibus, calycibus campanulatis villosis, labio superiore tridentato, inferiore bifido, corollis calyce duplo longioribus, tubo calycem æquante, fauce ventricosa, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice rhomboideo-dilatatis deflexis extremitate callosa connexis.

S. crassifolia. Sibth. et Sm. Fl. Gr. 1. 19. t. 26.*

Hab. in Armenia *Tournefort!* in insula Cypro rarissime *Sibthorp!* (v. s. sp. in herb. Banks. et Vahl.)

A *S. argentea* distinctissima foliis minoribus crassis potius dense tomentosis quam lanatis. Corolla alba, labio flavicante, magnitudine *S. Sclareæ*. Valde affinis *S. odoratæ*, differt foliis obtusioribus crassioribus, floralibus calycem subæquantibus, verticillastris 6-10-floris, et paniculis minus ramosis.

39. *S. SCLAREA* (Linn.! Spec. 38), caule herbaceo erecto villosa, foliis petiolatis ample ovatis eroso-crenatis basi cordatis rugosis incanis, supremis amplexicaulibus, floralibus latissimis acuminatis concavis membranaceis coloratis flores superantibus persistentibus, racemis paniculatis, verticillastris distantibus sub-6-floris, calycibus campanulatis striatis pubescenti-hispidis, labio superiore tridentato, inferiore bifido, dentibus subspinoso-acuminatis, corollis calyce duplo longioribus, tubo incluso sub fauce ventricoso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice dilatatis deflexis extremitate callosa connatis.

Sclarea vulgaris. Mill. Dict. n. 1.

Salvia bracteata. Sims. Bot. Mag. 49. t. 2320.

S. Simsiana. Ræm. et Schult. Syst. Add. 2. at Mant. 1. 210. Bot. Reg. 12. t. 1003.

S. Sclarea. Sibth. et Sm. Fl. Gr. 1. 18. t. 25.

Hab. ad vias et in siccis Europæ meridionalis et regionis Ponticæ: in Gallia meridionali! Pedemontio *Allioni*, Italia septentrionali *Reichenbach*, regno Napolitano *Tenore*, Sicilia *Gussone*, Istria et Dalmatia *Reichenbach*, ins. Coi Archipelagi Græci *Durville*, inter oppida *Sousougherli* et *Ulubad Bithyniæ Sibthorp*, Tauriæ montosæ declivibus editis inter *Baktchisarai* et *Sebastopolim Bieberstein*, in montibus *Talüsch C. A. Meyer.* (h. s. et v. v. sp.)

Caulis erectus, 2-3-pedalis, crassus, viscosus, pilis scariosis villosus. Folia maxima, sæpe 8-9 poll. longa, 4-5 lata, in spontaneis rugosissima villosa, in cultis glabriora, caulorum paris supremi basi angustata; floralia præsertim superiora membranacea, basi albida, apice rosea, comosa. Calyces *S. argenteæ*, brevissime pedicellati, basi albidi, pilis brevibus asperi, viscosi. Corolla albido-cærulea. Tubus medio contractus, intus dente apice penicillato appendiculatus. Connectiva ad latus interius dente brevi aucta. Stylus exsertus, sub lente brevissime pubescens.

40. *S. SPINOSA* (Linn.! Mant. 511), caule herbaceo glanduloso-piloso, foliis petiolatis ample ovatis inciso-crenatis basi rotundatis

* The wool is here figured longer than it is in Vahl's specimens, which also in habit come much nearer to *S. odorata*.

rugosis pubescentibus, superioribus sessilibus cordato-amplexicaulibus, floralibus latissimis acuminatis concavis persistentibus calyces sub-superantibus, racemis paniculatis, verticillastris distantibus 6-10-floris, calycibus tubulosis cylindricis striatis, labio superiore 3-dentato, inferiore bifido, dentibus omnibus erectis spinosis, corollis calyce vix dimidio longioribus, tubo incluso sub fauce ventricoso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis membranaceo-dilatatis extremitate callosa connexis.

Horminum suaveolens. *Mæneh. Meth.*

Marum ægyptiacum. *Vesling. Fl. Ægypt. 75. ic. 76.*

S. abyssinica. *Linn. Fil. Suppl. 88. ex Steud. Nom. Bot. non Linn. herb.*

S. ægyptiaca. *Linn. Mant. 26. ex Ræm. et Schult. non ejusd. Spec.*

S. spinosa. *Jacq. Ic. Rar. 1. 2. t. 7.*

Hab. in Ægypto *Vahl!* in Syria prope Aleppo *Russell!* (*h. s. c. et v. s. sp. in herb. Banks.*)

Herba pedalis 2-pedalisve, sæpius pilis patulis apice glandulosis ex omni parte hispida, rarius glabra. Rami tetragoni, angulis obtusis callosis glabris. Folia inferiora 4-5-pollicaria, breviter petiolata, glabriuscula. Floralia calyce florifero longiora, fructifero subbreviora, viridia vel basi albo-membranacea, margine ciliata. Calyces sessiles, post anthesin elongati, sæpe ultrapollicares, ore parum dilatato, extus nunc glaberrimi, lucidi, sæpius pilis longis glanduliferis ciliati. Dentes labii superioris subæquales, lanceolato-subulati, subspinosi, inferioris profundiores. Corolla alba, extus glabra. Genitalia labium superius corollæ subæquantia. Connectiva edentula.

41. *S. TINGITANA* (Ettl. Salv. 30), caule herbaceo glanduloso-piloso, foliis petiolatis ample ovatis inciso-crenatis basi subcordatis rugosissimis villosis, superioribus amplexicaulibus, floralibus latissimis acuminatis concavis persistentibus calyce subbrevioribus, racemis paniculatis, verticillastris distantibus 6-10-floris, calycibus campanulatis plicato-striatis hispido-ciliatis, labio superiore subtridentato, dente medio obsoleto, lateralibus et laciniis labii inferioris rectis subspinosi, corollis calyce duplo longioribus, tubo calycem æquante sub fauce ventricoso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis membranaceo-dilatatis extremitate callosa connexis.

S. foetida. *Lam. ! Ill. 1. 69.*

S. coarctata. *Vahl! Enum. 1. 277.*

Hab. in Africæ borealis agro Tunetano *Desfontaines.* (*h. s. c.*)

Affinis *S. spinosæ*, a qua differt foliis latioribus basi cordatis et rugosioribus, et præcipue calycibus ample campanulatis nec cylindricis, et corollis majoribus, tubo ampliore medio contracto nec tenui apice tantum ventricoso. Tota planta pilis longis patentibus et brevibus glandulosis hispida, et odorem gravem spirat.

42. *S. PRÆCOX* (Vahl Enum. 1. 274).

Hab. in Africa boreali *Herb. Jussieu.* (*Vahl.*)

“*S. foliis ovato-oblongis subrepandis lævibus subpilosus, bracteis cordatis venosis acuminatis longitudine calycis.*

“*Similis S. tingitanæ.* Caulis herbaceus, erectus, pilosus. Folia inferiora petiolata, tripollicaria, ovato-oblonga, basi attenuata, obsolete dentata, obtusa, venis raris pilosa, superiora sessilia, ovata, acuta, mucronata, inæqualiter dentato-subrepanda, cæterum inferioribus similia. Pedunculi ex axillis superioribus et terminalibus uti pedicelli villosi-viscosi. Verticilli remoti, 4-6-flori. Bractæ venosæ, in cuspidem attenuatæ. Calyx bilabiatus, tubulosus, nervosus, labium superius ovatum longius, inferius bifidum, dentibus cuspidatis innocuis. Corolla magnitudine *S.*

Sclarea, galea villosula linearis stylo et labio inferiore brevior, labium inferius concavum. Antheræ propendentes."—*Vahl l. c.*

43. *S. ÆTHIOPIS* (Linn.! Spec. 39), caule herbaceo erecto albo-lanato, foliis infimis petiolatis basi angustatis, caulinis cordato-amplexicaulibus, omnibus inciso-dentatis rugosissimis utrinque dense albo-lanatis, floralibus latissimis acuminatis persistentibus concavis calyces æquantibus lanatis, racemis paniculatis, verticillastris 6-10-floris distinctis, calycibus campanulatis coriaceis lanatis, labio superiore 3-dentato, inferiore bifido, dentibus omnibus subulato-spinosis patulis, corollis calyce duplo longioribus, tubo incluso sub fauce ventricosus, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa connatis.

Æthiopis. *Besl. Hort. Eyst.* 2. ord. 8. fol. 3. fig. 1.

Sclarea Æthiopis. *Mill. Dict.* n. 2.

Sclarea lanata. *Mœnch. Meth.* 374.

Salvia Æthiopis. *Jacq. Fl. Austr.* 3. 7. t. 211.

Hab. in Europæ, Africæ et Asiæ regionis Mediterraneo-Ponticæ arvis et campis aridis argillosis et in locis siccis sterilibus: in Barbaria *Desfontaines*, Hispania? Gallia meridionali! Pedemonte *Allioni* (in flore Napolitano et Siciliano non recensetur), in Austria! Hungaria *Lang*! Dalmatia *Reichenbach*, Illyria *Vahl*, Podolia *Besser*! Græcia et Syria *Vahl*, ad ruinas veteris Chersonesi *Durville*, in Tauria *Bieberstein*, *Durville*, &c. promontorio Caucasico *A. de Klustine*! *Bieberstein*, in montibus Talüsches et prope castellum Grosnaia *C. A. Meyer*. (*h. s. et v. v. sp.*)

Herba nunc vix semipedalis, sæpius pedalis vel ultra, apice paniculata, ex omni parte lana longa densa nivea vestita. Folia minora crassiora quam in affinibus, superiora uti floralia et dentes calycini acutissima, subspinosa, basi membranacea. Calyces plicato-striati, tubo membranaceo, ore patente. Corolla albida, labio superiore pubescente, sæpe rubescente, tubus medio contractus dente brevi obtuso penicellato intus appendiculatus. Connectiva edentula. Stylus exsertus.

44. *S. COMPRESSA* (*Vahl*! Enum. 1. 275), caule herbaceo erecto villosus, foliis infimis petiolatis basi rotundatis, superioribus cordato-amplexicaulibus, omnibus ovatis eroso-dentatis rugosis utrinque sublanatis, floralibus latissimis obtusis persistentibus concavis coloratis ciliatis calyces æquantibus, racemis paniculatis, verticillastris 6-10-floris, supremis abortientibus, calycibus campanulatis membranaceis coloratis pubescentibus, labio superiore 3-dentato, dente intermedio minimo, inferiore bifido, dentibus obtusis, corollis calyce dimidio longioribus, labio superiore falcato compresso, inferioris lobis lateralibus oblongis, connectivis postice abrupte dilatatis extremitate callosa connatis.

S. compressa. *Vent. Hort. Cels.* t. 59.

Hab. "in Oriente *Hort. Cels.*" *Vahl*! (*v. s. c. in herb. Vahl.*)

Affinis *S. Æthiopidi*. Differt præcipue foliis floralibus dentibusque calycinis obtusis muticis, et verticillastris supremis abortientibus.

45. *S. ARGENTEA* (Linn.! Spec. 38), caule herbaceo erecto villosus, foliis radicalibus petiolatis caulisque inferioribus sessilibus ample ovatis basi cuneatis sinuato-lobatis erosus lanatis rugosis, floralibus latissimis acuminatis concavis persistentibus pilosis calyces æquantibus, racemis paniculatis, verticillastris 6-10-floris remotis, supremis abortien-

tibus, calycibus campanulatis striatis villosis, labio superiore 3-dentato, inferiore bifido, dentibus omnibus subspinosus, corollis calyce subtriplo longioribus, tubo incluso, fauce ventricosa, labio superiore maximo falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice abrupte dilatatis extremitate callosa connatis.

Sclarea argentea. Mill. Dict. n. 15.

Salvia Æthiopis. Brot. Fl. Lus. 1. 18. non Linn.

S. patula. Desf. ! Fl. Atl. 1. 25.

S. atlantica. Pers. Syn. 1. 29.

S. candidissima. Guss. Prod. Fl. Sic. 1. 16. et Auct. Ital. Hoffm. et Link Fl. Port. 1. 151. t. 20. non Vahl.

S. pyramidalis. Petagna Inst. Bot. 2. 54 ?

S. argentea. Jacq. Hort. Schænbr. 1. 4. t. 6. Sibth. et Sm. Fl. Gr. 1. 20. t. 27.

Hab. in Europæ et Africæ regionis Mediterraneæ arvis incultis: in Barbaria Desfontaines! Lusitania hinc inde in Transtagana Brotero! Hispaniæ provincia Algarvense et circa Matritum frequentissima Masson! in Sicilia Gussone, regno Napolitano Tenore, Dalmatia Visiani! monte Parnasso Græciæ Sibthorp, Creta Vahl. (h. s. sp. comm. a cl. Visiani, et v. s. sp. in herb. plur.)

Affinis *S. spinosæ* et *S. tingitanæ*. Folia radicalia et caulina infima 6-8 poll. longa, 4-6 lata, sæpius profunde incisa, lobis eroso-crenatis, rugosissima venis albis, utrinque lana laxa vestita, caulina superiora multo minora, floralia omnino *S. tingitanæ*. Panicula ampla, sed parce ramosa, racemis elongatis apice abortientibus. Calyces sessiles, 8-9 lin. longi, fructiferi patentissimi, basi submembranacei, rigidi, striati, dentibus labii superioris vix inæqualibus. Corolla speciosa, roseo-alba, magnitudine *S. pratensem* paullo superans. Tubus medio contractus, intus dentibus 2 subconnatis appendiculatus. Connectiva postice (supra dilatationem) sæpius edentula, rarius dente minimo subulato notata, appendicula supra breviter obtuse bidentata.

46. *S. VERBASCIFOLIA* (Bieb. Fl. Taur. Cauc. 3. 24), caule herbaceo erecto viscoso-villoso, foliis infimis petiolatis ample ovatis basi cordatis sinuato-lobatis erosus crassis rugosissimis supra vix lanatis subtus niveis tomentoso-lanatis, floralibus latissimis acuminatis concavis persistentibus villosis calyces subæquantibus, racemis subpaniculatis, verticillastris 2-6-floris approximatis distinctis summis abortivis, calycibus campanulatis striatis viscoso-villosis, labio superiore tridentato, inferiore bifido, dentibus omnibus acutis vix spinosis, corollis calyce duplo longioribus, tubo incluso, fauce ventricosa, labio superiore maximo falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis bicornutis extremitate callosa connatis.

S. candidissima. Bieb. Fl. Taur. Cauc. 1. 21. non Vahl.

Hab. in Asiæ regionis Caucasice sterilibus! in collibus Iberiæ Caucasique orientalis et ad torrentes Samur et Jacharibasch ditionis Cubensis Bieberstein, in lapidosus siccis altiorum montium Talüsche C. A. Meyer, prope Tiflim herb. Lambert! (h. s. sp. comm. a cl. Prescott.)

S. argenteæ maxime affinis, differt statura humiliore, foliis basi cordatis nec angustatis, lana brevior tomentosa, paniculis minus ramosis, et verticillastris magis approximatis. Corolla paullo minor. Connectiva postice supra dilatationem subulato-dentata, appendicula supra bicornuta.

47. *S. BROUSSONETI*, caule herbaceo erecto subviscoso-villoso, foliis petiolatis ample ovatis obtusis sinuato-crenatis basi cordatis crassis

rugosissimis supra viridibus subglabris subtus niveo-tomentosis venis viscoso-pubescentibus, floralibus ovato-lanceolatis acuminatis concavis viridibus hispidis persistentibus calyce sublongioribus, racemis paniculatis, verticillastris subsexfloris distinctis, calycibus campanulatis hispidis, labiis patentibus, superiore 3-dentato, dentibus ovatis acutis, medio abbreviato, corollis calyce vix duplo longioribus, tubo incluso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa connexis.

Hab. in Teneriffa? vel in Africa boreali? *Broussonet!** (*v. s. sp. in herb. Lambert.*)

Species distinctissima, affinis *S. verbascifoliæ*; sed foliis amplioribus supra lana destitutis, panícula densiore ramosiore villosissima, foliis floralibus angustioribus, floribus minoribus, et aliis notis differt.

48. *S. MOORCROFTIANA* (Wall.; Benth. in Wall. Pl. As. Rar. 1. 67), caule herbaceo erecto basi lanato superne villos-viscoso, foliis infimis longe petiolatis ample ovatis eroso-crenatis basi angustatis rugosis supra villosis subtus albo-lanatis, floralibus latissimis acuminatis concavis persistentibus calyces æquantibus, racemis paniculatis, verticillastris remotis subsexfloris, calycibus campanulatis striatis aspero-villosis, labio superiore 3-dentato, inferiore bifido, dentibus omnibus subulato-mucronatis, corollis calyce triplo longioribus, tubo longe exserto sub fauce ampliato, labio superiore subfalcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice abrupte dilatatis extremitate callosa connexis.

Hab. in Asiæ mediæ vel Indiæ Orientalis regione Himalayana: in Luddak *Moorcroft!* in valle Cashmeriana et in Kanaour et Kidarkanta *Royle!* (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Royle.*)

Affinis *S. argenteæ*, differt foliis longe petiolatis minus incisus supra vix lanatis subtus lana subfloccosa densissime vestitis, calycibus minoribus, corollis longioribus, tubo tenui exserto intus inappendiculato. Calycis dentes longe subulato-acuminati. Folia floralia et calyces viscoso-pubescentes, coriacei, basi membranacei, albidii. Corolla violacea? extus pubescens. Genitalia longe exserta. Stamina superiora filiformia, anthera biloculari cassa. Connectiva inferiorum edentula.

49. *S. LANATA* (Roxb. Fl. Ind. 1. 147), caule herbaceo cæspitoso basi lanato, foliis oblongo-lanceolatis obtusis integris minute crenulatis basi longe angustatis rugosissimis supra laxè subtus densissime niveo-lanatis, floralibus latissimis acuminatis concavis persistentibus calyces æquantibus, racemis subsimplicibus villos-viscosis, verticillastris remotis sub-6-floris, calycibus campanulatis, labio superiore truncato breviter tridentato, inferiore bifido, dentibus acutis, corollis calyce duplo longioribus, tubo breviter exserto sub fauce ampliato, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis edentulis postice deflexis abrupte dilatatis extremitate callosa connatis.

S. integrifolia. *Hardw. in Asiat. Res.* 6. 349.

S. cana. *Wall. Cat. Herb. Ind. n.* 2145.

* As I have not seen this plant in any other collection from the Canary Islands, and it was not even met with by Messrs. Webb and Berthelot during their numerous and careful herborisations in the island of Teneriffe, I suspect that there must be some mistake in the habitat of this species, and that it was one of those collected by Broussonet in the neighbourhood of Tangiers.

Stenarrhena lanata. Don *Prod. Fl. Nepal.* 111.

Salvia lanata. Wall. ! *Pl. As. Rar.* 2. 11. t. 116.

Hab. in Asiæ mediæ jugo Himalayano : in alpibus summis Kamaonensibus, Sirmorensibus et Gurwalensibus *Wallich* ! in monte elevato prope Adwanee inter Hurdwar et Srinaghur *Hardwicke*, in Mussooree et in toto jugo vulgaris *Royle* ! (*h. s. sp. e Mus. Angl. Ind.*)

Caules e basi lignoso plures, erecti, basi ramosi, foliosi, dense niveo-lanati, superne floriferi simplices, pilis patentibus et pubescentia viscosa vestiti, 1-2-pedales. Folia 3-4 poll. et ultra longa, vix 8-9 lin. lata, nunc integerrima, sæpius minute crenulata vel sinuata. Verticillastri demum 2-3 poll. distantes. Flores magnitudine *S. Æthiopidis*, et calyces et bracteæ conformes, sed villosi, nec lanati. Corolla extus pubescens, tubo basi attenuato intus subvillosa et versus medium minute bidentato. Stylus exsertus.

50. *S. PHLOMOIDES* (Asso *Oryctogr. Arrag.* 158. t. 4), caule herbaceo cæspitoso basi albo-lanato, foliis oblongo-linearibus lanceolatisve acutis integris vel infimis sinuato-lobatis basi longe angustatis rugosissimis utrinque albo-lanatis, floralibus latissimis acuminatis concavis persistentibus calyce longioribus, racemis subsimplicibus villososviscosis, verticillastris remotis, calycibus campanulatis, labio superiore truncato breviter 3-dentato, inferioris dentibus lanceolatis acuminatis, corollis calyce subtriplo longioribus, tubo exserto sub fauce ventricoso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis subdilatatis extremitate callosa connexis.

S. phlomoides. *Ræm. Script. Pl. Hisp. et Lusit.* 10. t. 1. f. 1.

Hab. in Hispania : copiose in montibus Arragonensibus circa Siguenza *Vahl* ! in montibus Bæticis *herb. Lambert* ! (*v. s. sp. in herb. Lambert, Vahl, &c.*)

Statura *S. lanatæ*. Caules basi lana laxa apice pilis longis patentibus et pubescentia viscosa vestiti. Verticillastri 2-3 pollices remoti. Folia floralia sublanata. Calyces pilis longis patentibus hirsuti, basi membranacei. Corolla extus subglabra, tubo basi tenui intus nudo. Connectiva postice edentula, interdum subantherifera. Stylus exsertus.

51. *S. CERATOPHYLLA* (Linn. ! *Spec.* 39), caule herbaceo basi albo-lanato, foliis inferioribus profunde pinnatifidis, lobis linearibus obtusis sinuato-subpinnatifidis rugosissimis utrinque laxè lanatis, superioribus subintegris, floralibus latissimis acuminatis concavis persistentibus calyce longioribus, racemis paniculatis, verticillastris sub-6-floris distantibus, supremis abortientibus, calycibus campanulatis, labio superiore tridentato, inferiore bifido, dentibus omnibus lanceolatis setaceis subspinosi, corollis calyce duplo longioribus, tubo incluso ventricoso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa connexis.

Sclarea ceratophylla. *Mill. Dict. n.* 8.

Salvia exasperata. *Cav. Ann. Hist. Nat.* 3. 113. t. 17. *Ejusd. Ic.* 6. 38. t. 558.

Hab. in Oriente : in Syria prope Aleppo *Russell* ! prope Arimatheam *Sieber* ! in Persia *Vahl*, et in Mauritania sec. *Vahl*, sed dubia civis. (*h. s. c. et v. s. sp. in herb. Banks, Vahl, &c.*)

Caulis pars inferior et folia lana laxa nivea, racemus, bracteæ et calyces pilis longis albis scariosis patentibus vestiti. Folia inferiora 7-8-pollicaria, fere ad costam pinnatifida vel bipinnatifida, costa alata lobisque fere omnibus latitudine

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subæqualibus; folia floralia viridia, tenuia, minime rugosa, glutinosa. Calyces basi membranacei. Corolla luteo-albida, tubus intus nudus. Connectiva sub insertione supra dentata.

Species Sectionis V dubiæ vel incertæ sedis.

52. *S. GRAVEOLENS* (Vahl! Enum. 1. 273).

Hab. in Ægypto (*Herb. Juss.*) Vahl! (v. s. sp. *exempl. mancum* in herb. Vahl.)

“*S. foliis cordatis rugosis crenatis inferioribus subsinuatis, spicis ramosis hirsutissimis, bracteis cordatis.*

“*Caulis fruticosus. Rami obtuse tetragoni, villosissimi. Folia petiolata, bipollicaria, sursum sensim minora, inferiora cordato-oblonga, superiora cordata, obtusa, inæqualiter crenata, utrinque rugosa, villosa, præsertim subtus incana. Spica spithamæa, inferne simpliciter ramosa. Verticilli approximati, pilis sordide albis hirsutissimis, sexflori. Bracteæ attenuatæ, calyce breviores, supra glabræ. Calyx subsessilis, campanulatus, tridentatus, dente superiore ovato. Corollæ galea lineari-falcata, pilosa, stylo brevior.*”—Vahl l. c.

Hujus specimen in herbario Vahliano servatum a vermibus fere destructum est, sed habitu distinctissimum videtur.

53. *S. VARIA* (Vahl Enum. 1. 273).

Hab. in Armenia *Herb. Juss.* (Vahl.)

“*S. foliis cordatis inæqualiter crenatis rugosis subtus cauleque incano-tomentosis.*

“*Caulis herbaceus. Folia petiolata, tripollicaria vel parum ultra, cordata, ovata, obtusa, utrinque rugosa, supra oculo armato villosula. Petioli sesquipollicares. Pedunculi terminales, terni. Verticilli sexflori. Flores sessiles. Bracteæ cordatæ, acuminatæ, longitudine calycis. Calyces uti pedunculi et bracteæ incani, dentibus subulatis. Corolla parva, calyce parum longior.*”—Vahl l. c.

Specimen Tournefortianum in herbario Banksiano servatum et sic nominatum videtur *S. pomifera*, quacum descriptio Vahlia non quadrat.

SECTIO VI. PLETHIOSPHACE.

Plethiosphace. *Benth. in Hook. Bot. Misc. 3. 373.*

Calyx ovatus, labio superiore supra concavo bisulcato dentibus tribus brevissimis conniventibus, inferius bifidum dentibus acutis. Corollæ tubus sub fauce amplius vel ventricosus, intus exannulatus, labium superius concavum vel falcato-compressum, inferioris lobi laterales oblongi suberecti subtorti, medius patens rotundatus plerumque concavus emarginatus crenulatus. Connectiva postice deflexa, abrupte dilatata, extremitate callosa connata.—*Herbæ Europææ, Africanæ, et Boreali-Asiaticæ, foliis sæpius eroso-dentatis vel incisis, racemis elongatis simplicibus vel virgato-paniculatis.*

54. *S. BICOLOR* (Desf. in Fourcr. Journ. de Découv. 1792), caule herbaceo erecto subramoso pubescenti-viscoso, foliis infimis petiolatis ample ovatis inciso-dentatis pinnatifidis vel palmato-lobatis, mediis petiolatis ovato-lanceolatis acuminatis inciso-dentatis, superioribus sessilibus lanceolatis, omnibus basi cordatis glutinoso-pubescentibus, floralibus ovato-lanceolatis acuminatis reflexis, racemis subramosis

elongatis, verticillastris sexfloris distinctis, calycibus pedicello brevioribus campanulatis striatis glutinoso-hispidis, labio superiore ovato-rotundato dentibus conniventibus subulatis, inferioris dentibus lanceolatis subulato-acuminatis, corollis calyce triplo longioribus, tubo calycem æquante superne ampliato, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, genitalibus longe exsertis, connectivis postice rhomboideo-dilatatis deflexis extremitate callosa connexis.

S. bicolor. *Bot. Mag.* 43. t. 1774. *Desf. Fl. Atl.* 1. 22. t. 2. *Jacq. Hort. Schænbr.* 1. 4. t. 7.

S. crassifolia. *Cav. Hort. Matr. Descr.* 15. *Jacq. Fragm.* 47. t. 60.

Hab. in Africa boreali: in ruderatis urbis Tingidis antiquæ *Schousboe*, prope *Salies Masson!* *Tlemsen Desfontaines*, *Tangier Broussonet!* (*h. s. sp. comm. a cl. Bouschet-Doumenq.*)

Species pulcherrima ac distinctissima affinis *S. austriacæ*. Caulis 2-3-pedalis, parce ramosus, crassus, tetragonus, angulis callosis. Folia radicalia sæpius palmato-pinnatifida, nunc subintegra, et caulina angustiora rugosa, supra glabriuscula vel pilis sparsis glutinosis obsita, subtus nervis glutinoso-pilosis. Racemus $1\frac{1}{2}$ -2-pedalis, multiflorus. Pedicelli 4-6 lineas longi. Bracteæ subnullæ. Calyx 4-5-linearis, pilis apice glutinosis hispidus, labiis patentibus, dentibus setaceo-acuminatis. Corolla *S. austriacæ*, amplior, labio superiore cœruleo-violaceo punctis aureis, inferiore candido, tubus subæqualis, vix ventricosus, intus nudus. Labii inferioris lobus medius lato-ovatus, concavus, emarginatus.

55. *S. ALGERIENSIS* (*Desf. Fl. Atl.* 1. 23. t. 3).

Hab. in Africa boreali: prope *Maiane Algeriæ Desfontaines*.

“*S. foliis inferioribus ovatis crenatis in petiolum decurrentibus, calycibus dentato-spinosis nutantibus, bracteis reflexis.*

“Caulis erectus, hirsutus, 6-9 decim. tetragonus, angulis obtusis. Rami longi, virgati, erecti. Folia glabra, inferiora ovato-oblonga, crenata, obtusa, 2-5 centim. lata, 8-16 longa, in petiolum brevem decurrentia, media et superiora pauca, sessilia, lanceolata, acuta, sæpe integerrima. Verticilli 2-4-6-flori, distincti. Flores pedicellati, ante et post florescentiam nutantes. Bracteæ ovatæ, acutæ, reflexæ. Calyx hirsutus, striatus, 5-dentatus, dentibus apice setaceo-spinosis, tribus superioribus brevioribus. Corolla cœrulea, magnitudine *S. pratensis*. Labium superius villosum, falcatum, compressum, inferius trilobum, lobo intermedio majore concavo. Filamenta arcuata, transversim pedicello brevi affixa. Stylus exsertus. Semina fusca, subrotunda, calyce tecta. Affinis *S. bicolori*. Differt caule hirsuto, foliis ovato-oblongis crenatis nec erosus aut sinuato-crenatis.”—*Desf. l. c.*

Ex descriptione a *Sclareis* recedit calyce, et potius ad *Hormina* vel ad *Æthiopes* referenda; sed ob affinitatem cum *S. bicolori* huc retuli. Ex icone *S. bullatæ* vel *nudicauli* affinior est. In herbario *Vahliano* exstat panicula ab auctore ipso missa, quæ videtur *S. bicolor*, sed folia diversa nec cum descriptione supra citata quadrant.

56. *S. LATIFOLIA* (*Vahl Enum.* 1. 271).

Hab. in regno Tingitano *Herb. Juss. (Vahl.)*

“*S. foliis remote dentatis glabris, inferioribus oblongis basi attenuatis, superioribus cordatis, pedunculis elongatis.*

“Caulis herbaceus, erectus, rare pilosus, purpurascens, superne in ramos fliferos divisus. Folia radicalia petiolata, superiora sessilia, 2-3-pollicaria, obtusissima, basi attenuata, acutiuscula, venoso-villosa, suprema minora, venosa, pilis rarissimis obsoletis adspersa. Pedunculi superne terni, villosi, subviscosi. Verticilli remoti, quadriflori. Pedicelli brevissimi. Bracteæ cordatæ, acuminatæ, villosæ, intus glabræ, calyce dimidio breviores. Calyces campanulati, striati, villosi, bilabiati. Labium superius adscendens, ovatum, acutum, inferius bifidum, dentibus setaceis. Corolla calyce multo major, galea falcata, apice oculo armato villis nonnullis adspersa, stylo brevior. Filamenta propendentia.

“Valde affinis *S. algeriensi*, mihi diversa esse videbatur foliis remote dentatis

supremis cordatis nec lanceolatis serratis, galea minore subvillosa nec hirsuta, seminibus majoribus."—*Vahl l. c.*

57. *S. INAMÆNA* (Vahl! Enum. 1. 269), caule herbaceo erecto-ramoso glutinoso-hispido, foliis petiolatis ample ovatis inciso-dentatis basi cordatis hispidis, supremis lanceolato-linearibus, floralibus ovatis acuminatis reflexis, racemis elongatis subramosis, verticillastris 6-floris distantibus, calycibus pedicello brevioribus ample campanulatis striatis hispidis, labio superiore ovato dentibus subulatis subconniventibus, inferioris dentibus lanceolato-subulatis, omnibus brevibus rigidis, corollis calyce duplo longioribus, tubo calycem æquante vix ampliato, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, genitalibus vix exsertis, connectivis postice deflexis dilatatis extremitate callosa connatis.

Hab. in Hispania *Schousboe.* (v. s. in herb. *Vahl.*)

Caulis crassus, uti petioli, foliorum nervi, bracteæ et calyces extus villis apice glandulosis frequentissimis canescens. Folia palmaria, rudia, facie fere *Cucumeris sativi*, acuta, basi e dentibus majoribus subangulata, utrinque e villis brevibus crispis canescentia, præsertim subtus scabriuscula venis subtus prominentibus, ramorum floriferorum lanceolata, inferiora petiolata, superiora floralia sessilia basi dilatata. Petioli inferiorum longi. Pedunculi brachiati, elongati. Pedicelli villosos-viscosi, 6-9 lin. longi. Calyx 4 lin. longus, rudis, labiis divaricatis, dentibus in spinula flava subpungente desinentibus. Corolla magnitudine *S. Sclareæ*, extus pubescens. Achenia oblongo-subglobosa, lævia. Valde affinis *S. bicolori*, a qua differt foliis caulinis majoribus, racemis hispidioribus, et corollis minoribus. An ejus var.?

58. *S. AUSTRIACA* (Linn. Syst. Veg. 69), caule herbaceo erecto subnudo pubescente, foliis radicalibus petiolatis lato-ovatis integris eroso-dentatis basi cordatis rotundatis vel cuneatis rugosis supra glabris subtus pubescentibus, caulinis paucis sessilibus, floralibus ovatis acuminatis ciliatis calycem subæquantibus, racemis subramosis, verticillastris subsexfloris, inferioribus distantibus, supremis approximatis, calycibus subsessilibus campanulatis pilosissimis, labio superiore rotundato dentibus brevissimis conniventibus, inferioris dentibus ovatis acutis, corollis calyce triplo longioribus, tubo subexserto, medio contracto, fauce ventricosa intus subnuda, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, genitalibus longe exsertis, connectivis postice abrupte dilatatis deflexis extremitate callosa connexis.

Sclarea distans. *Mæneh. Meth.*

Salvia distans. *Pohl. ex Steud. Nom. Bot. 725.*

S. Sclarea. *Crantz. Stirp. Austr. 236. non Linn.*

S. austriaca. *Jacq.! Fl. Austr. 2. 8. t. 112. Bot. Reg. 12. t. 1019.*

Hab. in Europæ orientalis herbidis ad margines agrorum, &c. in Austria inferiore! Hungaria! Transylvania *Reichenbach*, Moldavia *Vahl*, inter Tanaim et Anticetam *Bieberstein*, circa Elizabethgrad *Prescot!* frequens in Tauriæ montibus *Bieberstein.* (*h. s. sp.*)

Caulis 2-3-pedalis, subsimplex, crassus, obtuse tetragonus, pilis subviscosis pubescens. Folia radicalia 3-4 poll. longa et vix angustiora, terræ appressa, nervis sæpe rubescentibus, caulinarum paria 1-2, sessilia, 2-pollicaria, ovata, acuta, floralia ovato-cordata, 5 lineas longa. Bracteæ pedicellum subæquant, ovato-lanceolatae. Pedicellus 1-2 lin. longus. Calyx 4-5 lin., pilis longis mollibus villosissimus. Dentes labii inferioris breves, ovati, superiores brevissime setacei, medio minimo. Corolla ochroleuca, extus piloso-glutinosa, magnitudine fere *S. pratensis.*

59. *S. CERATOPHYLLOIDES* (Linn.! Mant. 26), caule herbaceo adscendente? villosos, foliis oblongis inciso-pinnatifidis, lobis oblongo-

lanceolatis inciso-dentatis rugosissimis glabris, superioribus subsessilibus, floralibus ovatis acutis calyce dimidio brevioribus, racemis elongatis subramosis, verticillastris remotis 2-6-floris, calycibus pedicellatis campanulatis hispidis, labio superiore orbiculato recurvo-patente dentibus minimis conniventibus, inferioris dentibus lanceolatis acutis, corollis calyce duplo longioribus, tubo breviter exserto sub fauce ventricosus, labio superiore subfalcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis rhomboideo-dilatatis extremitate callosa connexis.

Salvia, &c. *Arduini Spec.* 2. 12. t. 2.

S. ceratophylla. *Ten. Syll. Fl. Nap.* 21. et auct. plur. non Linn.

Hab. in regione Mediterranea australiore: in collibus aridis Calabriae *Tenore*, in Sicilia australi *Presl*, *Arduini*, *Cupani* (*Gussone*), in Ægypto *Vahl.* (*h. s. c.*)

Rami divaricati, adscendentes, pubescentia brevi et pilis longis subreflexis villosi. Folia *S. clandestinæ*, sed auctiora, sæpius glabriuscula, rarius longe pilosa. Racemi in cultis ultrapedales, verticillastris longe remotis. Calyx *S. pratensis*, at minor, vix viscosus. Corolla *S. pratensis* minor, *S. verbenacæ* major, forma *S. pratensis*, tubus intus nudus. Stylus breviter exsertus, lobo superiore brevissimo.

60. *S. PRATENSIS* (Linn.! *Spec.* 35), caule herbaceo erecto subsimplici pubescente, foliis radicalibus petiolatis oblongo-ovatis obtusis crenatis incisive basi cordatis bullato-rugosissimis supra glabris, petiolis nervisque subtus pubescentibus, caulinis paucis sessilibus, supremis lanceolatis acuminatis, floralibus cordato-ovatis calyce brevioribus subreflexis, racemis viscosis subsimplicibus, verticillastris sexfloris distantibus, calycibus subsessilibus campanulatis viscoso-villosis, labio superiore ovato-rotundato dentibus brevissimis conniventibus, corollis calyce triplo longioribus, tubo subventricosus calycem æquante, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, genitalibus exsertis, connectivis postice rhomboideo-dilatatis deflexis extremitate callosa connexis.

Sclarea pratensis. *Mill. Dict. n.* 4.

Sclarea tuberosa. *Mill. Dict. n.* 12?

Salvia pratensis. *Sm. Engl. Bot.* 3. t. 153.

S. agrestis. *Linn. Amœn. Acad.* 3. 399?

S. hæmatodes. *Linn. Spec.* 35.

S. Barrelieri. *Ten.! Fl. Nap.* 1. 9. t. 2. *Schranck Hort. Monac.* 1. t. 5.

S. Tenorii. *Spreng. Syst.* 2. 65. *Sweet Brit. Fl. Gard.* 1. t. 26.

S. rubicunda. *Wenderoth!*

S. virgata. *Savi. Bot. Etrusc.* 2. 4. ex *Ten. Syll. Fl. Nap.* 17. non *Jacq.*

S. variegata. *Waldst. et Kit. Willd. Enum. Hort. Berol.* 1. 36.

S. tricolor. *Hortul.*

Hab. in Europæ mediæ et australis herbidis pratis siccis ad vias &c. vulgaris in Anglia! Gallia! Hispania! Lusitania, Germania! Italia! Græcia *Sibthorp*! Rossia meridionali! etiam in promontorio Caucasico *C. A. Meyer*, et prope Tiflim *Steven*! In Europa boreali scil. in floribus Scoticis, Suecicis, Petropolitanis, &c. desideratur. (*h. s. et v. v. sp.*)

Species statura et pubescentia variabilis, at floribus magnis cœruleis rarissime rubentibus aut albis, racemo simplici vel utrinque ramis paucis instructo, foliis vix incisive cordatis rugosissimis &c. recognoscenda. Radix interdum an constanter? tuberosa. Folia sæpe præsertim in varietatibus australioribus plus minusve sanguineo-maculata.

61. *S. DUMETORUM* (Andrz. in Bess. Enum. Pl. Volhyn. 3. et 40), caule herbaceo erecto subsimplici pubescente, foliis radicalibus et infimis petiolatis ovatis duplicato-crenatis basi profunde crenatis rugosis utrinque glabris vel subtus ad nervos et petiolos pubescentibus, caulinis paucis sessilibus latissime cordato-ovatis acutis, floralibus rotundato-cordatis calyce brevioribus demum reflexis, racemis subsimplicibus viscosis, verticillastris sexfloris remotis, calycibus subsessilibus campanulatis striatis viscoso-villosis, labio superiore ovato-rotundato, dentibus brevissimis conniventibus, corollis calyce subtriplo longioribus, tubo ventricoso calycem æquante, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, genitalibus subinclusis, connectivis postice rhomboideo-dilatatis deflexis extremitate callosa connexis.

S. agrestis. Linn. *Amœn. Acad.* 3. 399. sec. Ledeb. *Fl. Alt.* 1. 24. sed vix ex descr.

Hab. in Asia media : in jugo Altaico, in pratis ad flumen Tscharysch, in deserto Kirghisico ad flumen Nura *Ledebour!* in valle Cashmeriana *Royle!* (*h. s. sp. comm. a cl. Royle, et v. s. c. in herb. plur.*)

A *S. pratensis* differt foliis minoribus minus rugosis integrioribus, inferioribus longius petiolatis, caulinis latioribus, verticillastris remotioribus, floribus dimidio minoribus; a *S. virgata* statura humiliore et racemo subsimplici; a *S. campestris* exemplaribus minoribus verticillastris remotis viscosis; a *S. nudicauli* et *S. bullata* foliis.

62. *S. LUSITANICA* (Jacq. Fil. Ecl. 1. 57. t. 38. excl. syn. Vahl et Poir?), caule herbaceo erecto piloso-viscoso, foliis radicalibus petiolatis, caulinis paucis amplexicaulibus, omnibus triangulari-ovatis basi truncatis subcordatis acutis inciso-dentatis rugosissimis supra glabris subtus villosis, floralibus ovatis acuminatis calyces æquantibus, racemis ramosis, verticillastris 6-floris distantibus, calycibus subsessilibus campanulatis striatis hispidis subvenosis, labio superiore lato rotundato, dentibus brevissimis conniventibus, corollis calyce duplo longioribus, tubo incluso ventricoso, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice rhomboideo-dilatatis deflexis extremitate callosa connexis.

Sclarea lusitana. Mill. *Dict. n.* 3?

Hab. in peninsula Hispanica? (*v. s. c. in herb. Hooker et aliorum.*)

This is very nearly allied to the *S. pratensis*, *dumetorum*, and *virgata*. It has the small flowers of the two latter species, the branching panicle of the *S. virgata*, from which it differs in stature, being not half the height, and in its leaves, which are extremely rugose, and acutely dentate as in the *S. pratensis*, but much broader, and less cordate at the base. Jacquin's figure represents the plants I have in view exceedingly well. He states that it was drawn from a plant raised from seeds sent from the Copenhagen garden as Vahl's *S. bullata*; but the wild specimens of that plant preserved in Vahl's herbarium are so very different, that I think there must have been some mistake in the transmission of the seeds.

63. *S. VIRGATA* (Ait. ! Hort. Kew. ed. 1. 1. 39), caule herbaceo erecto ramoso pubescenti-villoso, foliis radicalibus petiolatis ample ovatis basi cordatis, caulinis inferioribus breviter petiolatis amplis ovato-oblongis basi rotundatis vel cordatis, superioribus sessilioribus minoribus, supremis cordato-amplexicaulibus acuminatis, omnibus erosocrenatis rugosis supra glabriusculis subtus nervis pubescentibus vel hispidis, floralibus ovato-acuminatis subreflexis calyce brevioribus,

racemis ramosis elongatis, verticillastris sexfloris distantibus, calycibus breviter pedicellatis campanulatis striatis villosis-viscosis, labio superiore lato rotundato recurvo-patente, dentibus minimis conniventibus, corollis calyce duplo longioribus, tubo incluso subventricosus, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice rhomboideo-dilatatis deflexis extremitate callosa connexis.

S. virgata. Jacq. *Hort. Vind.* 1. 14. t. 37.

S. tiberina. Mauri ex cl. Requien.

S. garganica. Ten. ! *Ind. Sem. Hort. Nap.* 1829. et *Syll. Fl. Nap.* 18.

S. caduca. Horn. *Hort. Hafn.* 1. 30 ?

S. amplexicaulis. Lam. *Ill.* 1. 68 ?*

S. rubra. Spreng. ! *Syst. Cur. post.* 17.

S. caucasica. Schranck in *Syll. Pl. Soc. Ratisb.* 2. 58 ?

S. affinis. Spreng.—Steud. *Nom. Bot.* 725 ?

S. Bauhini, *Barrelieri*, *quercifolia*, *taurica*, *taurina*, &c. *Hortul.*

Hab. in Italia : Romæ *Requien* ! in pratis Gargani *Tenore*. (*h. s. sp. comm. a cl. Requien et v. v. c.*)

Species in hortis sæpe occurrit, ubi magnopere variat, nec facile ab affinibus distinguenda. A *S. pratensi* differt panicula maxima (2-4-pedali), racemis elongatis paucifloris, foliis amplis, et floribus multo minoribus ; a *S. Sibthorpii* (cujus varietates hortenses sæpe huic similes) statura elatiore, verticillastris remotis, calycibus et foliis floralibus viscosis vix coloratis, et floribus majoribus. Specimina sylvestria valde hispida.

64. *S. viscosa* (Jacq. *Misc.* 2. 328. *Ic. Rar.* 1. 2. t. 5), caule herbaceo erecto viscoso-pubescente, foliis petiolatis lato-ovatis crenulatis subsinuatis basi cordatis rugosis utrinque villosulis viscosis, superioribus sessilibus, floralibus rotundatis calyce duplo brevioribus, racemis elongatis ramosis, verticillastris remotis sub-6-floris, calycibus campanulatis viscoso-villosis, labio superiore ovato-rotundato subrecurvo-patente, dentibus minimis conniventibus, corollis calyce triplo longioribus, tubo exserto sub fauce ventricosus, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis rhomboideo-dilatatis extremitate callosa connexis.

Hab. in Europa australi : in Hispania ? *Pavon* ! in Italia *Vahl*, ad Calaone et Serra prope Este *Sternberg* (*Reichenbach*). (*h. s. c. et v. s. sp. ? in herb. Lambert.*)

Ex omni parte viscoso-pubescent. Caulis elatus, 3-pedalis vel ultra, superne parce foliosus, paniculatus. Folia radicalia 8 poll. longa, 4-5 lata, caulina inferiora 3-4 poll. longa, 2-3 lata, superiora multo minora, lata, subsessilia, omnia irregulariter crenulata vel sinuata, nec incisa. Calyces subsessiles, 2-3 lin. longi, fructiferi 4 lin. ample campanulati, labio superiore supra valde concavo. Corolla 8-9 lin., cœrulea, extus glabra. Stylus exsertus, lobo superiore brevior. Affinis *S. virgatæ*, sed foliis latis integrioribus et viscositate diversa.

65. *S. rugosa* (Thunb. *Prod. Fl. Cap.* 97), caule herbaceo adscendente villosissimo, foliis petiolatis ovatis vel oblongo-lanceolatis obtusis eroso-dentatis basi cordatis bullato-rugosissimis utrinque pubescentibus, floralibus ovato-cordatis acutis calyce subbrevioribus, race-

* This and the following are garden names, much confused as to the plants they were originally given to ; but I believe all belong to this species, or to garden varieties raised from it, of which so many are to be met with in botanical gardens in this country and on the continent.

mis subramosis, verticillastris 6-10-floris remotis, calycibus campanulatis glutinoso-villosis striatis, labio superiore orbiculato recurvo, dentibus minutis conniventibus, corollis calyce duplo longioribus, tubo calycem æquante sub fauce ventricoso, labio superiore recto, inferioris lobis lateralibus ovatis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa connexis.

Hab. ad Caput Bonæ Spei *Masson! Burchell!* (v. s. sp. in herb. *Banks et Burchell.*)

A *S. disermati* distincta foliorum forma, calycibus majoribus ample campanulatis nec ovato-tubulosis, et corollis (ut in ea albidis) fere duplo majoribus, floribus *S. pratensis*, tamen paullo minoribus.

The specimen in the Banksian herbarium from the Kew Garden, marked *S. rugosa*, appears to be the true *S. disermas*. Burchell's specimen (no. 1801) has the leaves four or five inches long, but has the large flowers of this species.

66. *S. DISERMAS* (Linn. ! Spec. 36), caule herbaceo basi procumbente, ramis adscendentibus glutinoso-villosis, foliis inferioribus petiolatis, superioribus subsessilibus, omnibus oblongo-lanceolatis erosis basi rotundatis vel cordatis utrinque glutinoso-villosis, floralibus lato-ovatis acutis calycem subæquantibus, racemis subramosis, verticillastris 6-10-floris remotis, calycibus ovato-tubulosis glutinoso-villosis striatis, labio superiore orbiculato recurvo, dentibus minute conniventibus, inferioris dentibus lanceolatis acutis, corollis calycem breviter superantibus, tubo calycem æquante sub fauce ventricoso, labio superiore recto, inferioris lobis lateralibus ovatis erectis, medio rotundato emarginato-patente, connectivis postice deflexis abrupte dilatatis extremitate callosa approximatis vel connexis.

Horminum *disermas*. *Mæench. Meth.*

Hab. ad Caput Bonæ Spei ! (*h. s. c. et v. s. sp.*)

Affinis *S. verbenacæ longifoliæ* et *S. clandestinæ* varietatibus majoribus; differt villositate omnium partium etiam foliorum paginæ superioris, caule basi procumbente, foliis angustioribus crassioribus erosis, nec crenatis ut in *S. verbenaca longifolia*, nec incisis ut in *S. clandestina*, calycibus majoribus, corollæ tubo ampliori, labiis brevioribus, &c. Corolla albida.

67. *S. SIBTHORPII* (Sm. et Sibth. ! Fl. Gr. 1. 17. t. 22), caule herbaceo erecto superne subpaniculato villosa, foliis radicalibus petiolatis amplis, superioribus sessilibus, omnibus ovatis grosse duplicato-crenatis subincisis supra glabris rugosis subtus villosis, floralibus rotundatis acuminatis subcoloratis calyce brevioribus, racemis elongatis brachiatis ramosis subcanescentibus, verticillastris numerosis distinctis 6-10-floris, calycibus tubuloso-campanulatis molliter villosis, labio superiore orbiculato recurvo, dentibus minimis conniventibus, inferioris dentibus lanceolatis acutissimis, corollis calyce vix duplo longioribus, tubo exserto sub fauce ventricoso, labio superiore subfalcato subcompressa, inferioris lobis lateralibus oblongo-linearibus suberectis, connectivis postice deflexis abrupte dilatatis extremitate callosa connexis.

S. campestris. *Bieb. Fl. Taur. Cauc.* 1. 20. et 3. 22. *Reichb. Icon. Bot. Eur-cent.* 6. 21. t. 529.

S. hypanica. *Andrz.—Bess. Enum. Pl. Podol.* 3.

S. mollis. *Jacq. Fil. Ecl.* 1. 56. t. 37 ?* *excl. syn. Donn.*

S. amplexicaulis, *Barrelieri*, *caucasica*, *taurica*, *virgata*, &c. *Hortul.*

* This appears to be a garden variety, referable, perhaps, to *S. virgata*.

Hab. in Europæ mediterranæe orientalis et in regionis Ponticæ campis graminosis ad vias, &c.: in Græciæ monte Parnasso! Peloponneso et in Zacyntho *Sibthorp*! ubique in insula Scyro *Durville*, in Podolia australi *Reichenbach*, in sylvis Bulgariæ prope Sisopolim et Ineada *Durville*, Smyrnæ *Fleischer*! in Tauria montosa occidentali *Bieberstein*, circa Sebastopolim abunde *Durville*. (*h. s. sp. et v. v. c.*)

S. sylvestri et *S. virgatæ* valde affinis: a priori differt caule minus folioso villosiore, foliis amplioribus (inferioribus 6-9 poll. longis, 3-4 latis), racemis elongatis virgatis; a *S. virgata* verticillastris magis approximatis numerosioribus, calycibus paullo majoribus, foliis floralibus sæpius membranaceis coloratis. In hortis elatior et ramosior evadit, et ideo *S. virgatæ* similior.

68. *S. SYLVESTRIS* (Linn. Spec. 34), caule herbaceo erecto superne paniculato, foliis inferioribus petiolatis, superioribus sessilibus, omnibus oblongo-lanceolatis crenatis basi rotundatis vel sæpius cordatis rugosis supra glabris subtus pallidioribus pubescentibus vel canescentibus, floralibus orbiculatis acuminatis coloratis calyces subæquantibus ante anthesin imbricatis post anthesin subreflexis, racemis elongatis subramosis, verticillastris 6-10-floris distinctis, calycibus ovato-tubulosis, labio superiore orbiculato recurvo brevissime tridentato, corollis calyce duplo longioribus, tubo calycem subæquante sub fauce ampliato, labio superiore subrecto, inferioris lobis lateralibus oblongis erectis, connectivis edentulis postice abrupte dilatatis extremitate callosa connexis.

Sclarea syriaca. Mill. Dict. n. 5.

Sclarea nemorosa. Mill. Dict. n. 6.

Sclarea sylvestris. Mill. Dict. n. 7.

Sclarea punctata. Mæench. Meth.

Salvia nemorosa. Linn. ! Spec. 35. Reichb. Icon. Bot. Eur. cent. 6. 19. t. 526.

S. sylvestris. Jacq. Fl. Austr. 3. 7. t. 212. Reichb. Icon. Bot. Eur. cent. 6. 20. t. 527.

S. deserta. Schangin in Ledeb. Cat. Hort. Dorp. 1824. p. 6. Reichb. Icon. Bot. Eur. cent. 6. 21. t. 528.

S. valentina. Vahl Enum. 1. 268.

S. elata. Host. Fl. Austr. 1. 24. an Ten. Syll. Fl. Nap. 18?

S. amplexicaulis. Lam. Ill. 1. 68? (*ex spec. in Hort. Par. lect.*)

S. alpestris, asperula, taurina, &c. Hortul.

Hab. in Europæ orientalis et meridionalis et Asiæ mediæ campis herbidis: in Hispania circa Valentiam! in Gallia meridionali *De Candolle*, sed mihi nunquam obvia; in Sicilia *Ucria* (*Gussone*), Gargano in regno Napolitano *Tenore*? in collibus Taurinensium *Allioni*, Germania orientali! scil. Austria! Bohemia! Hungaria! in Græcia *Swainson*! in Rossia australi! frequens a Tauria et Caucaso *Bieberstein*, *C. A. Meyer*, &c., usque ad Zmeiov et fluvium Irtysh et trans illum *Ledebour*. (*h. s. et v. v. sp.*)

Species, etsi statura et villositate variabilis, distinctissima habitu. Caulis nunc sesquipedalis, nunc tripedalis et ultra, apice paniculatus ramis brachiatis, tetragonus, glaber, pubescens vel villosus. Folia sæpius parva, vix 2-pollicaria, interdum vero 3-4-pollicaria et ultra, inferiora sæpius petiolata, et infima basi parum angustata, superiora sessilia, sæpius cordato-amplexicaulia, omnia rugosa, plus minusve villosa et subtus canescentia, margine simpliciter vel duplicato-crenata nec incisa, apice sæpius acutiuscula. Verticillastri inferiores sæpius semipollicem distantes, supremi magis approximati. Calyce 3 lin. longi, striati, nunc glabriusculi, sæpius plus

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minusve villosi, apice colorati. Corollæ purpureo-violaceæ. Tubus sub fauce parum ventricosus, intus nudus. Labium superius concavum. Stylus breviter exsertus.

69. *S. PENDULA* (Vahl! Enum. 1. 281), caule herbaceo erecto villosio, foliis infimis petiolatis, supremis sessilibus, omnibus oblongo-lanceolatis obtusis duplicato-crenatis basi subcordatis rugosis pubescentibus, floralibus orbiculatis acuminatis calyce duplo brevioribus persistentibus reflexis, racemis subramosis apice subnutantibus, verticillastris 6-10-floris distinctis, calycibus tubulosis pubescentibus, labio superiore orbiculato patente brevissime 3-dentato, corollis calyce duplo longioribus, tubo subexserto sub fauce ventricosus, labio superiore patente subfalcato, inferioris lobis lateralibus oblongis erectis, connectivis supra dentatis postice deflexis abrupte dilatatis extremitate callosa connexis.

S. cremenecensis. Bess. Enum. Pl. Volh. 40.

S. betonicaefolia. Etzl. Salv. 49. ex spec. Besserianis.

Hab. in Europa orientali: in Transylvania *Baumgarten* (*Reichenbach*), Podolia *Besser!* (*h. s. sp. comm. a cl. Besser.*)

A *S. nutante* differt caule folioso, foliis angustioribus brevius petiolatis, racemis paucis elongatis laxis, floribus duplo majoribus, tubo corollæ basi attenuato supra medium incurvo subtus ventricosus, et foliis floralibus dimidium calycis æquantibus; a *S. sylvestri* racemis vix ramosis nutantibus, foliis floralibus minoribus, floribus majoribus.

70. *S. NUTANS* (Linn.! Spec. 39), caule herbaceo pubescente subnudo, foliis subradicalibus longe petiolatis ovato-oblongis duplicato-crenatis basi subcordatis rugosis, floralibus minutis orbiculatis, racemis abbreviatis longe pedunculatis paniculatis per anthesin nutantibus, verticillastris sub-6-floris approximatis, calycibus reflexis pubescentibus, labio superiore ovato rotundato supra concavo brevissime tridentato, corollis calyce duplo longioribus, tubo æquali calycem æquante, labio superiore recto patente, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis dilatatis extremitate callosa connexis.

S. betonicaefolia. Etzling Salv. 49. sec. Bieb. Fl. Taur. Cauc. 1. 23.

S. hastata. Etzling Salv. 48. Vahl Enum. 1. 280.

S. pendula. Bess. Fl. Galic. non Vahl.

S. nutans. Waldst. et Kit. Pl. Rar. 1. 63. t. 62. Bot. Mag. 50. t. 2436.

S. acutifolia. Lam. Ill. Gen. 1. 683. ex Poir. Dict. 6. 637.

Hab. in Europa orientali: in Podolia et Galicia *Besser!* Hungaria et Transylvania *Reichenbach*, Bessarabia septentrionali *Tardieu!* in campis vastis ad Tanaim et Borysthenem et abunde in collibus apricis Tauriæ *Bieberstein*, prope Odessa *Lang!* in montibus Talüsches prope pagum Sivirs *C. A. Meyer*, nec in Caucaso *Bieberstein.* (*h. s. sp. comm. a cl. Besser.*)

Caulis 2-3-pedalis, subsimplex, tetragonus, angulis albidis callosis, superne anguste paniculatus. Folia pauca, infima petiolo 3-4 poll., lamina 4-5 longa, obtusa, irregulariter crenata, supra glabriuscula, subtus molliter pubescentia vel tomentosa, superiora paucissima, longe remota, ad ramificationes paniculæ minuta, lanceolato-lineariter, floralia pedicellis breviora, villosa. Racemi spicæformes, 1-1½ pollicem longi, per anthesin recurvo-penduli, demum erectiores. Calyx vix 2 lin. longus, striatus. Corolla violacea, 4-5 lin. longa. Labium superius inferiore longius, extus tenuiter pubescens. Tubus intus omnino nudus. Stamina corolla breviora.

Connectiva edentula. Stylus breviter exsertus, sub lente tenuissime pubescens, apice subulato-bifidus.

71. *S. BULLATA* (Schousboe ex Vahl! Enum. 1. 265), caule herbaceo erecto subsimplici piloso, foliis radicalibus petiolatis oblongo-ovatis obtusis crenatis subincisisve basi cordatis bullato-rugosissimis supra glabris petiolis nervisque subtus pilosis, caulinis paucis sessilibus, supremis lanceolatis acuminatis, floralibus cordato-ovatis calyce brevioribus subreflexis, racemis viscosis subsimplicibus, calycibus subsessilibus campanulatis viscoso-villosis, labio superiore ovato-rotundato dentibus brevissimis conniventibus, corollis calyce vix duplo longioribus, tubo subventricosus calycem æquante, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis, genitalibus vix exsertis, connectivis postice rhomboideo-dilatatis deflexis extremitate callosa connexis.

S. lusitanica. Poir. Dict. 6. 606? non Jacq.

S. elongata. Spreng. Pug. Pl. min. cogn. 1. 43.

Hab. in Europæ regionis mediterranæ australioribus: in Lusitania *Schousboe!* in Italia cum *S. pratensi* vel *S. clandestina* ab auctoribus confusa? (v. s. sp. in herb. Vahl.)

A *S. pratensi* non differt nisi floribus minoribus. Habitus *S. clandestinæ*, sed foliis distincta; a *S. Sibthorpii* racemis brevioribus viscosis paucifloris, et foliis minoribus.

72. *S. NUDICAULIS* (Vahl! Enum. 1. 266), caule herbaceo erecto subnudo incano-villoso, foliis subradicalibus petiolatis oblongo-linearibus lanceolatisve acutis eroso-dentatis basi subcordatis bullato-rugosissimis supra glabris subtus canescentibus subvillosis, floralibus ovato-rotundatis calyce brevioribus subreflexis persistentibus, racemis simplicibus ramosisve, verticillastris sexfloris distantibus, calycibus subsessilibus campanulatis striatis viscoso-villosis, labio superiore ovato-rotundato dentibus brevissimis conniventibus, inferiore longiore, corollis calyce subduplo longioribus, labio superiore falcato compresso, inferioris lobis lateralibus oblongis erectis.

S. merjamie. Forsk. Fl. Ægypt. Arab. 10.

S. abyssinica. Linn. Fil. Suppl. 88? * non Auct. alior.

Hab. in "Arabia" Forsköl! (v. s. sp. in herb. Vahl.)

Valde affinis *S. bullatæ*. Differt foliis angustioribus rugosioribus eroso-dentatis.

73. *S. VERBENACA* (Linn.! Spec. 35), caule herbaceo erecto pubescente vel villosus, foliis lato-ovatis oblongisve crenatis rugosis glabris, inferioribus longe petiolatis basi angustatis, superioribus latioribus sessilibus basi cordatis, floralibus ovato-rotundatis acuminatis villosis persistentibus calyce subbrevioribus post anthesin reflexis, racemis elongatis simplicibus vel subramosis, verticillastris remotis

* The specimen marked *S. abyssinica* in Linnæus's herbarium only differs from this by its more branched and leafy stem, and appears intermediate between the *S. nudicaulis* and the narrow-leaved varieties of *S. verbenaca*, or the larger varieties of *S. clandestina*, and is certainly very distinct from *S. nilotica*, to which it is commonly referred.

sub-6-floris, calycibus ovatis hirsutis, labio superiore orbiculato recurvopatente dentibus minimis conniventibus, corollis calyce dimidio longioribus, tubo calycem æquante sub fauce ventricosus, labio superiore recto vel subfalcato concavo, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa approximatis vel connexis.

Horminum verbenaceum. *Mill. Dict. n. 1.*

S. Spielmanni. *Willd. Enum. 38. non Scop.**

S. Spielmanniana. *Bieb. Fl. Taur. Cauc. 1. 21.*

S. illyrica. *Schult. Obs. Bot. 8.*

S. micrantha. *Desf. Cat. Hort. Par.? non Vahl.*

S. verbenaca. *Curt. Fl. Lond. v. 3. ic.*

S. horminoides. *Pourr! Act. Tolos. 3. 327.*

S. byzantina, heterophylla, &c. Hortul.

β oblongifolia, foliis oblongis crenatis vix incis. *is.*

S. oblongata. *Vahl! Enum. 1. 256.*

S. betonicæfolia. *Lam.! Ill. 1. 70. non Ettl.*

γ? incisa, foliis lato-ovatis incis. lobis ovatis acutis approximatis.

Hab. in Europa septentrionali et media: in Scotia! Anglia! Gallia septentrionali! et media! Suecia, Dania, Germania! Italia? Rossia Europæa! ad sepes circa Byzantium *Durville!* in Caucaso et Tauria *Bieberstein?* *β* in hortis culta, *γ* in Europa media et australiori ad Tolosam in Gallia? (*v. v. et h. s. sp.*)

Caulis herbaceus, erectus, 2-pedalis et ultra, plus minusve villosus, superne ramosus. Folia sæpius 3-4-pollicaria, 1½-2 poll. lata, lobis rarissime ad medium attingentibus. Racemi axis, folia floralia et calyces semper molliter villosi. Calyces subsessiles, post anthesin nutantes, apice uti folia floralia colorati. Corollæ cœruleæ, rarius albidæ, magnitudine corollæ *S. Hormini*. Var. *β* est varietas hortensis, foliis angustioribus minus incis. Var. *γ* maxime affinis est *S. clandestinæ*, cui forsan referenda.

74. *S. CLANDESTINA* (Linn. Spec. 36. non ejusd. herb.), caule herbaceo erecto pubescente vel villosus, foliis ovato-oblongis inciso-dentatis pinnatifidisve rugosis glabris, inferioribus petiolatis basi angustatis truncatis vel subcordatis, floralibus ovato-rotundatis acuminatis villosis persistentibus calyce subbrevioribus post anthesin reflexis persistentibus, racemis simplicibus vel subramosis, verticillastris inferioribus remotis supremis approximatis subsexfloris, calycibus ovatis hirsutis, labio superiore orbiculato dentibus minimis conniventibus, corollis calyce duplo longioribus, labio superiore subfalcato concavo, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa approximatis vel connexis.

Sclarea decidua. *Mærch. Meth. ex Steud. Nom. Bot. 725.*

S. verbenaca. *Vahl! Enum. 1. 255. Reichb. Icon. Bot. Eur. 6. 17. t. 523. et Auct. plur. austr. non Linn.*

S. verbenacoides. *Brot. Fl. Lusit. 1. 17.*

S. polymorpha. *Hoffm. et Link Fl. Port. 1. 149. t. 19. Reichb. Icon. Bot. Eur. 6. 18. t. 524. f. 719.*

* Some of these synonyms, as well as of the habitats which I have not had the opportunity of verifying with certainty, may perhaps belong to the *S. clandestina*.

- S. acutata.* Link ex Brot. Phyt. Lus.
S. obtusata. Link ex Brot. l. c.
S. parviflora. Link ex Brot. l. c. non Vahl.
S. clandestinoides. Link Jahrb. 3. 169.
S. præcox. Savi Fl. Pis. 1. 22. Lois. Not. 6. non Vahl.
S. pallidiflora. St. Am. Fl. Agen. 10.
S. variabilis var. Lois Fl. Gall. ed. 2. v. 1. 16.
S. oblongata. Reichb. Icon. Bot. Eur. 6. 16. t. 522. non Vahl.
S. micrantha. Desf. Cat. Hort. Par.* ex Reichb. l. c. non Vahl.
S. Viviani. Spreng. in Sieb. Pl. Apul. et Calabr. ex Reichb. l. c.

β *multifida*, foliis profunde inciso-pinnatifidis, lobis ovato-oblongis.

S. multifida. Sibth. et Sm. ! Fl. Gr. 1. 17. t. 23. Reichb. Icon. Bot. Eur. 6. 18. t. 524. f. 720.

Horminum, &c. Barr. Ic. Rar. 24. t. 200.

S. clandestina. Vahl Enum. 1. 256. Reichb. Icon. Bot. Eur. 6. 18. t. 525.

S. laciniata. Willd. ! Enum. Hort. Berol. Suppl. 2.

S. erosa. Desf. Cat. Hort. Par. 68. Poir. Dict. Suppl. 5. 49.†

S. ceratophylloides. Willd. Enum. Hort. Berol. 1. 297. ex Reichb. l. c. non Linn.

S. ceratophylla. C. A. Meyer Verz. Pfl. Cauc. 68 ? non Linn.

Hab. in Europæ australis et Africæ borealis apricis ad vias, &c. : in Lusitania Brotero, Hispania Pavon ! Gallia australi ! Italia omni ! Sicilia Gussone, Sardinia et Istria Müller ! Dalmatia Visiani ! ad Byzantium Sibthorp ! Smyrnæ Fleischer ! in Syria prope Aleppo Russell ! in montibus Talüsch prope pagum Swant et circa pagos versus mare Caspium C. A. Meyer. (h. s. et v. v. sp.)

This is a most variable plant, and in growth and character, as well as in habitat, connects the *S. verbenaca* with the *S. controversa*. It differs from the former by its narrower leaves usually more dissected, its lower stature, shorter and denser spikes, and larger flowers. The leaves are generally collected near the bottom of the stem, and the racemes occupy more than half its height ; yet specimens are to be met with which come so near the *S. verbenaca*, that it is difficult to say to which they belong. On the other hand, the specimens gathered in the more southern parts have the lobes of the leaves deeper, narrower, and more obtuse, and connect this with the *S. controversa*, a plant in every respect so different at first sight from the *S. verbenaca*. In these specimens, also, the corolla frequently becomes abortive, as in the *S. controversa* ; yet I think, upon the whole, the differences between the three species are sufficiently marked to keep them distinct.

I have seen specimens of the *S. multifida* from Sibthorp, and have found the calyces formed as those of the other species of this section, and not with the upper lip truncate with three erect teeth, as described and figured in the Flora Græca.

75. *S. CONTROVERSA* (Ten. Syll. Fl. Nap. 18.), caule herbaceo pubescente vel villosa, foliis oblongis inciso-pinnatifidis, lobis oblongo-linearibus obtusissimis inciso-crenatis bullato-rugosissimis margine revolutis utrinque pilosiusculis, inferioribus petiolatis, superioribus sessilibus, floralibus ovato-rotundatis acuminatis villosis calyce vix brevioribus, racemis ramosis, verticillastris 6-10-floris, inferioribus remotis, supremis approximatis, calycibus ovatis pilis longissimis hirsuto-lanatis, labio superiore orbiculato recurvo-patente dentibus minimis conniventibus, corollis calyce brevioribus vel dimidio longio-

* This synonym belongs more probably to the *S. verbenaca*, under which I have already placed it.

† This name is also given in gardens to a totally different plant, the *S. runcinata* ; and it is in some degree doubtful which of the two was described by Poiret.

ribus, connectivis postice deflexis abrupte dilatatis extremitate callosa approximatis vel connexis.

S. lanigera. Poir.! *Dict. Suppl.* 5. 48. (exempl. majora hortensia.)

S. clandestina. Linn.! *herb. non ejusd. Spec.* 36. *Sibth. et Sm.! Fl. Gr.* 1. 18. t. 24.

Hab. in regione Mediterranea australiori: in Hispania *Leon Dufour!* *Pavon!* Calabria *Tenore*, ins. Cypro *Sibthorp!* Syria prope Aleppo *Russell!* in Africæ deserto Magnæ Syrtos *Viviani*, Ægypto *Poiret*, ad Caput Bonæ Spei *Burchell!* (v. s. sp.)

S. clandestinæ habitu simillima, at sæpius humilior, ramosior. Folia magis incisa, lobis fere ad costam attingentibus obtusissimis et ut in *S. ceratophylla* bullato-rugosissimis, utrinque pilis longis raris sparsis et ad nervos pubescentia brevi vestitis. Racemi pilis longissimis albis villosissimi nec viscosi. Calyces subsessiles, post anthesin deflexi, forma *S. verbenacæ*. Corollæ in speciminibus sylvestribus plerumque in fundo calycis minutissimæ, inapertæ, at genitalia perfecta includentes. Ovarii lobi maximi. Achenia matura pallida, lævia, subinflata. In *S. lanigeræ* speciminibus hortensibus caulis elatior et ramosior evadit, at cæterum omnino huic speciei similia sunt.

76. *S. NUBIA* (Ait. Hort. Kew. ed. 1. 1. 42? non Auct. plur.), caule herbaceo erecto villosa canescente, foliis inferioribus longe petiolatis, superioribus sessilibus vel cordato-amplexicaulibus, omnibus oblongo-ovatis lanceolatisve obtusis vel acuminatis irregulariter crenatis erosive basi cordatis rugosissimis supra tenuiter pubescentibus subtus cano-tomentosis sub-lanatis, racemis villosissimis densis ramosis, verticillastris sexfloris approximatis, calycibus ovatis mollissime hirsutolanatis, labio superiore orbiculato recurvo-patente, dentibus minimis conniventibus, corollis calyce subduplo longioribus, labio superiore falcato subcompressa, inferioris lobis lateralibus oblongis erectis, connectivis postice deflexis abrupte dilatatis extremitate callosa approximatis vel connexis.

Hab. in Abyssinia *Herb. Lambert.* (v. s. c. in *herb. Lamb. ex sem. a cl. Bruce in Abyssinia lectis.*)

Habitus *S. verbenacæ*. Folia fere *S. sylvestris*. Racemo et floribus *S. controversæ* affinis, sed caulis elatior, et racemus ramosior, densior.

Species Sectionis VI dubiæ vel incertæ sedis.

77. *S. SCLAREOIDES* (Brot. Flor. Lus. 1. 17. Phyt. Lus. 3. t. 2).

Hab. in collibus calcareis Lusitaniæ circa Conimbricam, Olisiponem et alibi in Beira et Extremadura *Brotero*.

“*S. foliis radicalibus subcordatis aut ovato-oblongis acutiusculis rugosis bicrenatis lanuginosis, verticillis sexfloris viscidis, bracteis calyce brevioribus, involucrio quadriseto.*”

Radix perennis. Caulis annuus, erectus, profunde quadrisulcatus, villosus ut tota planta, 1-3 ped. altus, simplex vel ramis 2-4 aphyllis. Folia radicalia petiolata, rugosissima, utrinque villosa, sed non viscida, 3-8 unc. longa, alia cordata, obtusa, duplicato-crenata v. obsolete sinuata, alia subcordata, oblonga vel ovato-oblonga, acutiuscula, dentato-sinuata, petiolo villosissimo. Caulina pauca, minora, sessilia. Verticilli numerosi, racemum longissimum efficientes, inferiores remotiores, floribus cernuis subsecundis, rhachi villosa-viscosa. Bractee (folia floralia) patentes, cordato-ovatae, acuminatae, extus villosae, ciliatae. Involucri setae (bractee) utrinque duae lineari-lanceolatae, pedunculis in anthesi vix longiores, deinde breviores. Calyx campanulatus, 3-4 lin. longus, striatus, villosa-viscosus, labium superius depressum

bilacunosum, apice in obtusam rotundatamque formam terminatum denticulis spinulosis brevibus (conniventibus) intermedio brevissimo, labium inferius bifidum dentibus acuminatis. Corolla obscure violacea, rarissime, alba, labium superius 5 lin. longum erectum subfalcatum compressum extus villosum, inferius paulo brevius, laciniis lateralibus oblanceolatis subtortis horizontaliter intermediæ incumbentibus, intermedia deflexa subrotunda concava integra vixque emarginata, faux tumida supra calycem parvum exserta, tubus ad medium constrictus. Stamina fertilia corollam æquantia. Connectiva postice depressa expansa, extremitate callosa connexa. Sterilia brevissima, antheræ rudimento terminata. Stylus exsertus. Achenia fusca, subrotunda. (*Descr. ex Brot. l. c.*)

An *S. verbenacæ* vel *S. virgatæ* var.?

78. *S. BARRELIERI* (Ettling Salv. 46. ex Vahl Enum. 1. 269. non Ten.)

Hab. in Hispania *Ettling*.

“*S. foliis hastato-lanceolatis inæqualiter serratis, caule folioso erecto.*

“*Caulis erectus, bicubitalis. Folia petiolata, hastato-septemlobata, lobo medio producto lanceolato, acuta, hirsuta. Bracteæ parvæ, ovatæ, ciliatæ, acutæ. Verticilli sexflori. Calyx villosus, 5-dentatus.*”—*Ettling l. c. ex Vahl l. c.*

An *S. bicolor*?

79. *S. PYRENAICA* (Linn. Spec. 36).

Hab. in Pyrenæis *Tournefort*.

“*S. villosa-viscosa, foliis dentato-sinuatis obtusis, staminibus corolla duplo longioribus.*

“*Caulis bicubitalis et altior, ramosus. Folia inferiora petiolata, spithamæa, cordata, dentato-sinuata, venosa, supra glabra, subtus nervis rare villosa, superiora sessilia, oblonga. Pedunculi terminales, elongati, incani. Verticilli 4-6-flori, floribus pedicellatis. Bracteæ cordatæ, attenuatæ, reflexæ. Calyx campanulatus, villosus. Labium superius adscendens, bidentatum, inferius trifidum laciniis ovatis, intermedia subulata. Corolla cœrulea, oculo armato sparse punctata, pilis obsoletis, galea falcata acuta.*”—*Vahl Enum. 1. 263.*

An *S. virgatæ* affinis?

80. *S. PARVIFLORA* (Vahl Enum. 1. 268. Labill. Ic. Pl. Syr. Rar. dec. 4. 13. t. 7).

Hab. in Oriente *Vahl*, in Syria juxta Damascus in monte Dgebel Cher dicto *Labillardiere*.

“*S. foliis cordato-ovatis crenatis rugosis, racemis terminalibus compositis, bracteis cordatis calyce brevioribus.*”—*Vahl l. c.*

“*Planta radice perennis, herbacea. Caulis erectus, sesquipedalis, subincanus. Folia cordato-oblonga, venosa, rugosa, viridi-cinerascentia, crenata, subtus villosiuscula, superiora sessilia. Verticilli floribus subpetiolatis 2-6-flori, bracteis ovatis acutis vix calycis longitudine. Calyx tomentosus, subincanus, dimidio corolla brevior. Corolla subtomentosa, flavescens, labio superiore rectiusculo subemarginato, inferiore trilobo, lobo medio suborbiculato. Stamina labio superiore inclusa, pedicello filamentorum brevi stylo exserto. Semina 4, bina unicumve abortiva. Alias ut in congeneribus.*”—*Labill. l. c.*

Ex icone Labillardieri affinis videtur *S. sylvestri*, ex specimine Tournefortiano in herbario Banksiano servato et sic nominato *S. verbenacæ* var. est. In herbario Vahlano deest. Simillima videtur *S. nubicæ*, sed calycibus tomentosis subincanis discrepat.

81. *S. CANESCENS* (Meyer Verz. Pfl. Cauc. 86).

Hab. in promontorii Caucasici rupestribus versus fluvium Antice-tam et prope acidulam Nartzana *C. A. Meyer*.

“*S. perennis, herbacea, foliis oblongis sinuato-lyratis lanatis subtus incanis, caulinis sessilibus, verticillis remotis subsexfloris, bracteis suborbiculatis cuspidatis calyce (vix) brevioribus, calycibus (3) pilosis corolla triplo brevioribus.*”—*Meyer l. c.*

82. *S. LIMBATA* (Meyer Verz. Pfl. Cauc. 86).

Hab. in Caucaso: in locis siccis lapidosis montium Talüsche prope pagum Swant Meyer.

"*S. perennis*, caule herbaceo erecto ramoso subaphyllo subhirsuto, foliis hirsutiusculis, radicalibus petiolatis ovatis cordatis obtusiusculis eroso-crenatis, caulinis (binis parvis) sessilibus acutis, verticillis sexfloris remotis, bracteis ovatis acuminatis deciduis calyce ($\frac{3}{4}$) hirsuto brevioribus, corolla calyce triplo longiore, staminibus styloque galeam falcatam hirsutam excedentibus. Corolla alba vel dilutissime rosea, lobo medio labii inferioris flavo fusco-marginato."

S. FLEXUOSA (Schranck in Syll. Pl. Soc. Ratisb. 2. 57.) deleatur. Est enim pessime descripta, nec in horto nec in herbario servatur, et ideo non recognoscenda.

SECTIO VII. MICROSPHACE.

Microsphace. Benth. in Hook. Bot. Misc. 3. 374.

Calyx ovatus, labio superiore integro. Corolla minima, tubo incluso intus exannulato, labiis brevissimis, superiore erecto, inferioris lobis lateralibus patentibus. Connectiva postice deflexa, linearia, longitudinaliter connata. Styli lobus inferior complanato-dilatatus rotundatus.—*Herbæ procumbentes Americanæ.*

83. *S. OCCIDENTALIS* (Swartz Fl. Ind. Occ. 1. 23), herbacea diffusa vel procumbens glabra vel pubescens, foliis petiolatis lato-ovatis acutis serratis basi rotundatis cuneatisve glabris vel hispidulis, floralibus pedicello vix longioribus sessilibus ovato-lanceolatis acutis persistentibus, racemis elongatis basi subramosis, verticillastris 2-6-floris remotis, floribus minutis, calycibus tubulosis glanduloso-villosis, labio superiore integro dentibusque labii inferioris obtusis, corollis calyce dimidio longioribus, labio superiore erecto, inferiore subpatente ei longiore, connectivis postice obtusis longitudinaliter connatis, styli glabri lobis complanatis rotundato-dilatatis.

Verbena minima chamædryos folio. Sloane Jam. 1. 172. t. 107.

S. procumbens. Ruiz et Pav. ! Fl. Per. et Chil. 1. 27. t. 39. f. a.

S. radicans. Poir. Dict. 6. 621.

Hyptis glandulosa. Sieb. Fl. Mart. exs. n. 151.

Hab. in Americæ æquinoctialis versuris ruderalis campestribus, &c. in Mexico ad Tampico Berlandier, Vera Cruz Houston ! Schiede et Deppe ; in Antillis vulgaris, scilicet in ins. Jamaica Damer ! Wright ! Sancti Dominici Mackenzie ! Cuba prope Havana Humboldt et Bonpland, Santa Cruz Isert, Martinica Sieber ! Antigua Nicholson ! Sanctæ Thomæ Wydler ! et Trinitatis De Schach ! Lockhart ! et in Peruvia in valle Limense copiose Ruiz et Pavon ! Mathews ! Cuming ! ad Chancay et Huanuco Ruiz et Pavon, et juxta Patibilca Humboldt et Bonpland. (h. s. sp.)

Caules sæpe pluripedales, tetragoni, nunc glaberrimi, nunc pilis brevibus reflexis canescentes et lineis glabris striati. Folia 1-1½-pollicaria, inferiora angustiora et basi magis cuneata, omnia glabra vel utrinque præsertim ad venas pubescentia, floralia glabra, opposita, nec alterna ut Swartz l. c. Racemi fere *Verbenæ officinalis*, adscendentes, striati, 4-6-pollicares, nunc simplices, nunc basi ramis paucis instructi. Verticillastri semipollicem vel inferiores pollicem distantes. Calyces vix 2 lin. longi, pilis glandulosis patulis dense obsessi. Corolla cœrulea, glabra, tubus calycem æquans, labium superius breve oblongum obtuse bidentatum, inferius subpatens, lobis reflexis lateralibus brevibus, medio oblongo integro. Staminum superiorum rudimenta nulla, inferiora corollam æquantia, connectivis ad inser-

tionem supra dentatis. Styli lobi stigmatiferi forma fere *Mimulorum*. Specimina Peruviana, uti bene observavit Schlechtendal (*Linnaea* 6. 754), nullo modo ab Antillanis differunt.

84. *S. MISELLA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 290).

Hab. in Novæ Hispaniæ locis calidis inter portum Acapulco et La Venta del Exido *Humboldt et Bonpland*.

“*S. caule herbaceo piloso; foliis subrotundo-rhomboideis acutis basi subcuneatis crenatis glabris, verticillis subsexfloris remotis, calycibus piloso-glandulosis.*

“*Caulis semipedalis, interdum pedalis, ramosus, diffusus, ramis adscendentibus tetragonis, pilis minutis reflexo-patulis conspersis. Folia brevissime petiolata, 2-4-linearia. Spicæ filiformes, verticillatæ. Flores pedicellati, pedicellis hirtis. Bracteæ subrotundo-ovatæ, acuminatæ, hirtæ, deciduæ, calyce breviores. Calyx campanulatus, striatus, bilabiatus, labio superiore acuto integro, inferiore bifido, laciniis acuminato-subulatis. Corolla haud suppetit calyce duplo longior violacea ex Bonpland.*”—*Kunth l. c.*

SECTIO VIII. CALOSPHERE.

Calosphere. *Benth. in Hook. Bot. Misc. 3. 374.*

Calyx ovatus tubulosus vel campanulatus, labio superiore integro vel breviter tridentato. Corollæ tubus exsertus vel inclusus, intus exannulatus, sed interdum prope basin dentibus 2 auctus. Labium superius rectum concavum integrum vel sæpius breviter emarginatum, inferioris lobi patentes. Connectiva postice deflexa linearia longitudinaliter connata. Styli lobus inferior subulatus.—*Herbæ suffrutices vel frutices Americanæ habitu polymorphæ, sed a cæteris sectionibus facile distinguendæ. Folia integra, serrata, crenata vel rarius integerrima.*

§ 1. *MICRANTHÆ.* *Corolla vix 3-linearis, calyce dimidio vel rarius subduplo longior. Tubus inclusus. Labium inferius superiore erecto subduplo longius.*—*Herbæ corollis cæruleis inconspicuis.*

85. *S. OBSCURA*, herbacea diffusa, foliis petiolatis ovatis acutis serratis basi angustato-cuneatis glabris vel supra hispidis utrinque viridibus, floralibus persistentibus sessilibus ovatis acuminatis calyce brevioribus, racemis elongatis simplicibus, verticillastris 2-6-floris remotis, floribus minutis, calycibus tubulosis subglanduloso-villosis, fructiferis auctis, labio supremo integro dentibusque labii inferioris breviter subulato-acuminatis, corollis calyce dimidio longioribus, labio superiore erecto, inferiore subpatente duplo longiore, connectivis postice deflexis obtusis longitudinaliter connatis, styli lobis subulatis acutis.

Hab. in Jamaica! (*v. s. sp. in herb. Hooker.*)

S. occidentali simillima, sed calycis lobi subulato-acuminati, et styli lobi acuti subulati nec rotundato-complanati.

In Mr. Lambert's herbarium are some specimens from New Spain which probably belong to this species. The ripe calyxes are much enlarged, and their teeth acuminate as in the Jamaica specimens; but there are no corollas remaining, to enable me to determine precisely to which they belong.

July 1833.

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86. *S. TENELLA* (Sw. Prod. Fl. Ind. Occ. 1. 45*), caule herbaceo pusillo procumbente, ramis adscendentibus pubescentibus, foliis petiolatis lato-ovatis rotundatis obtusis crenatis basi cordatis supra adpresse pubescentibus subtus glabris, floralibus lanceolatis minutis persistentibus, racemis brevibus, verticillastris subsexfloris, floribus minutis, calycibus tubulosis glanduloso-villosis, labio supremo integro dentibusque labii inferioris brevissimis obtusiusculis, corolla calycem breviter superante, labio superiore abbreviato truncato, inferiore patente trifido, connectivis postice longitudinaliter connatis, styli lobis subulatis.

Hab. in Jamaica *Shakespear! Masson! Wiles!* (v. s. sp. in herb. *Banks et Lambert.*)

Species omnium minima, vix 3-pollicaris, facie fere *Veronicæ agrestis*.

87. *S. MICRANTHA* (Vahl Enum. 1. 235), caule herbaceo erecto glabro vel pubescente, foliis petiolatis lato-ovatis obtusis irregulariter crenatis subscissis basi truncatis vel cordatis glabriusculis, floralibus lanceolatis pedicello brevioribus, racemis simplicibus, verticillastris 6-10-floris, floribus minutis, calycibus tubulosis glanduloso-villosis, labio supremo integerrimo dentibusque labii inferioris obtusis, corolla calyce dimidio longiore, labio superiore abbreviato truncato, inferiore patente lobo medio ovato-rotundato integerrimo, connectivis postice incurvo-clavatis longitudinaliter connatis, styli lobis subulatis.

S. bullata. Ort. Dec. 9. 109. Jacq. Hort. Schœnbr. 4. 41. t. 481.

S. serotina. Vahl! Enum. 1. 232. non Linn.

S. foliis cordato-ovatis, &c. Ard. Spec. 1. 10. t. 2.

Hab. in America æquinotiali: in Mexico *Moçino et Sessé!* ad Havanah *Herb. Hooker!* (h. s. c. et v. s. sp.)

Herba annua. Caulis semipedalis, pedalis vel ultra. Folia parva, inferiora petiolo semipollicem longo, limbo subtriangulari vix petiolo longiore, supra glabriuscula vel tenuiter pubescentia, subtus glabra pallida, superiora subsessilia, basi cordata, floralia sessilia, bractæformia, glabra, post anthesin persistentia, ante maturitatem sæpe decidua. Racemi 2-3-pollicares, verticillastris laxiusculis demum fere semipollicem remotis. Calyces pedicello longiores, 13-nervi, tubulosi, extus villosi, pilis plurimis apice glandulosis, lobo superiore integerrimo lato-ovato, inferiore parum longiore, lobis ovato-lanceolatis obtusiusculis, intus glabri, fructifer auctus declinatus. Corolla cœrulea, calycem paullo superans, tubo æquali, labium superius truncatum brevissimum erectum emarginatum, inferius patens, lobis latis obtusis truncatis, medio rotundato integro. Genitalia vix exserta. Stamina sterilia minuta, filiformia, apice capitulata, inferiora adscendentia, loculo fertili basi adfixa, connectivis postice edentulis extremitate liberis. Stylus glaber, lobo superiore abbreviato, inferiore longiore complanato subconcavo obtuso. Achenia oblongo-triquetra, lævia.

88. *S. SEROTINA* (Linn.! Mant. 25), caule herbaceo pubescente vel villoso, foliis petiolatis ovatis obtusis crenatis basi truncatis subcordatis rugosis supra villosis subtus molliter pubescenti-lanatis, floralibus lanceolatis pedicello brevioribus, racemis simplicibus, verticillastris sub-6-floris, floribus minutis, calycibus tubulosis glanduloso-villosis,

* The specimens under this name in Vahl's herbarium are not the same as Swartz's; they are, however, too bad to determine. The one looks very much like *Scutellaria purpurascens*; but the flowers are not sufficiently developed to ascertain the genus. The other has attached to it the loose calyx of a *Salvia*, but seems much larger than the *S. tenella*.

labio supremo subintegerrimo dentibusque labii inferioris acutiusculis, corolla calycem breviter superante, labio superiore abbreviato truncato, inferiore patente lobo medio ovato acuto, connectivis postice incurvo-clavatis longitudinaliter connatis, styli lobis subulatis.

S. dominica. *Vahl Enum.* 1. 233. *Sw. Obs.* 18. t. 1. f. 1. non *Linn.*

S. serotina. *Jacq. Ic. Rar.* 1. 1. t. 3.

Hab. in America æquinoctiali: in ins. Bahama *Herb. Hooker!* Trinidad *Sieber!* Santa Cruz *Von Rohr!* Jamaica *Waters!* (*h. s. c. et v. s. sp.*)

Affinis *S. micranthæ*, sed minor. Racemus laxis, ramosior, villosior. Folia villosa, angustiora, subregulariter crenata, nec eroso-crispa. Flores minores. Calycis dentes acutiusculi. Corolla minor, sordide alba. Calyx fructifer brevior et latior. Stamina et stylus omnino ut in *S. serotina*, cujus a quibusdam ut varietas habetur, sed meo sensu distincta. Stylus apice subulato-bifidus.

Linnæus's specimens of his *S. serotina* and *S. dominica* are both from the garden of Upsal, the former marked as having been received from Italy, and he gives St. Domingo as the locality of the latter, which is evidently owing to a mistake in the tickets, the *S. serotina* being a West Indian, and his *S. dominica* an Italian species.

89. *S. HUMILIS*, caule herbaceo erecto ramoso patentim piloso, foliis petiolatis lato-ovatis acutiusculis crenatis basi rotundatis cordatisve utrinque viridibus tenuissime pubescentibus, floralibus superioribus membranaceis lanceolatis deciduis, racemis simplicibus, verticillastris 2-4-floris laxis remotis, floribus inferioribus ad axillas foliorum caulium, calycibus tubuloso-campanulatis villosis, labio superiore integro dentibusque labii inferioris acutis, fructiferis valde auctis.

Hab. in Mexico *Karwinski.* (*v. s. sp. in herb. Mus. Reg. Berol.*)

Habitus et folia *S. serotinæ*, a qua differt verticillastris plerumque bifloris, inferioribus axillaribus, et præsertim calycibus fructiferis ut in *S. rhombifolia* vel *lanceolata* valde auctis subinflatis.

90. *S. INCONSPICUA*, caule procumbente? villosa, foliis brevissime petiolatis ovato-lanceolatis obtusis crenatis basi cordatis rugosis subtus rufo-tomentosis, floralibus deciduis, racemis subramosis, verticillastris 4-6-floris laxis, floribus parvis, calycibus tubulosis striatis subglanduloso-villosis, labio superiore integro dentibusque labii inferioris obtusis.

Hab. in Mexico *Hænke!* (*h. s. sp. comm. a cl. Presl.*)

Specimina *Hænkeana* manca, sed hæc species inter *micranthas* distinctissima videtur foliis valde rugosis subtus tomentosis. Caules elongati, ramosi. Folia 1-1½-pollicaria, superiora sessilia. Racemi subpaniculati. Calyces *S. serotinæ*, sed rigidiores, dentibus obtusioribus.

91. *S. RIPARIA* (*Humb. et Kunth Nov. Gen. et Spec. Amer.* 2. 300).

Hab. in regione temperata: in ripa fluminis Chulucanas inter pagum Guancabamba Peruvianorum et Paramo de Guamani *Humboldt et Bonpland.*

“*S.* caule herbaceo erecto ramoso pubescente, foliis ovato-oblongis acutis cordatis serratis utrinque piloso-pubescentibus, verticillis multifloris parum remotis, calycis piloso-glandulosi labio superiore tricuspidato.

“Herba canescens, odoratissima. Caulis strictus, paniculato-ramosus, ramique tetragoni, pubescentes. Folia opposita, breviter petiolata, ovato-oblonga, acuta, subcordata, serrata, utrinque præsertim subtus piloso-pubescentia, pollicaria. Petioli 2 lin. longi, pubescentes. Spicæ terminales, 3-4-pollicares, verticillatæ, verticillis

multifloris parum remotis. Bracteæ subrotundo-ovatae, acutæ, pedicellis pilosis vix longiores. Calyx subcampanulatus, bilabiatus, striatus, piloso-glandulosus, labio superiore tricuspidato, inferiore bifido, laciniis acuminato-subulatis. Corolla cœrulea, calyce parum longior ex Bonpl."—*Kunth l. c.*

92. *S. TILIÆFOLIA* (Vahl! Symb. 3. 7), caule herbaceo erecto glabriusculo vel tenuiter pubescente, foliis lato-ovatis crenatis basi truncatis vel subcordatis molliter rugosulis utrinque pilis raris pubescentibus, floralibus membranaceis lanceolatis deciduis, racemis simplicibus, verticillastris laxis approximatis 6-10-floris, calycibus tubulosis nervis ciliatis, labio superiore integro dentibusque labii inferioris ovato-lanceolatis acutis, corollis vix calycem excedentibus, labiis abbreviatis suberectis, connectivis postice deflexis obtusis longitudinaliter connatis, styli lobis subæqualibus subulatis.

S. fimbriata. Humb. et Kunth? Nov. Gen. et Spec. Amer. 2. 299. t. 149.

S. tiliæfolia. Jacq. Hort. Schænbr. 3. 2. t. 254.

Hab. in America æquinotiali: in convalli Caracasana et in Andibus Novæ Hispaniæ juxta urbem Pazcuaro *Humboldt et Bonpland*, ad Jalapa *Schiede et Deppe*, ad Caraccas *Parker!* (*h. s. c. et v. s. sp.*)

Caulis erectus, tetragonus, sulcatus, angulis glabris vel pilis reflexis brevissimis pubescentibus, nodis pilosis. Folia petiolo 1-1½-pollicari, limbo ovato rhomboideo acuminato æqualiter crenato basi truncato cordato vel ad petioli insertionem subcuneato supra ad margines et ad nervos paginæ inferioris pilis brevibus hispidulo, suprema minora subsessilia, floralia sessilia, membranacea, lanceolata, longe acuminata, glabra, ante anthesin decidua. Racemi simplices, terminales, densi, 2-3-pollicares, in icone Jacquiniana 4-6-pollicares, laxi, numerosi. Verticillastri sæpius sub-10-flori. Calyces pedicello longiores, declinati, tubulosi, 8-nervii, fructiferi parum aucti, dentibus ovato-lanceolatis acutis vel inferioribus breviter acuminatis sæpius purpurascentibus. Corolla minuta, cœrulea, labio superiore subfornicato brevissime emarginato, inferiore paullo longiore subpatente, lobis lateralibus minutis, medio ovato rotundato integro. Stamina breviter exserta. Connectiva postice supra dentata. Stylus glaber, lobus superior inferiore tenuior sublongior. Achenia oblonga, subcompressa, lævia, pallida.

Jacquin has figured the racemes much longer and more numerous than they usually are. In Kunth's figure the calyces are shorter and the flowers larger; the leaves are also narrower and shorter petioled.

93. *S. FLEXUOSA* (Presl MSS.), caule diffuso tortuoso glabro, foliis petiolatis ovatis acutis serrato-crenatis basi rotundato-cuneatis glabris, floralibus membranaceis lanceolatis deciduis, racemis simplicibus, verticillastris 6-10-floris, floribus minutis, calycibus tubulosis glabris vel nervis ciliatis, labio superiore integro dentibusque labii inferioris acutiusculis, corollis vix calycem excedentibus.

Hab. in Mexico *Hænke!* (*h. s. sp. comm. a cl. Presl.*)

S. tiliæfolia affinis, sed caules diffusi, tortuosi, glabri. Folia glabra vel ad margines et nervos minute ciliata, basi nec truncata nec cordata. Racemi 2-6-pollicares. Calyx minor quam in *S. tiliæfolia*, nervis breviter hispido-ciliatis.

A garden specimen in Mr. Lindley's Herbarium, said to be from Mexico, differs by its more slender spikes and longer calyces, borne on longer footstalks; but I believe both to belong to one species, nearly allied to, yet distinct from, *S. tiliæfolia*.

94. *S. LANCEOLATA* (Willd. Enum. Hort. Berol. 1. 37), caule herbaceo adscendente ramoso glabro, foliis petiolatis lanceolato-linearibus obtusiusculis vel acuminatis basi angustatis pubescentibus, junioribus incanis, floralibus lanceolato-subulatis calyce brevioribus, racemis

simplicibus, verticillastris subbifloris omnibus remotis, calycibus tubulosis striatis glabris, labio superiore integro dentibusque labii inferioris lanceolatis acutis, corollis calycem breviter superante, tubo incluso ventricosus, labio superiore recto, inferiore longiore lobis rotundatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo breviter bifariam barbato.

S. reflexa. Horn. Enum. Hort. Hafn. 1. 34.

S. lanceæfolia. Poir. Dict. Suppl. 5. 49.

S. lanceolata. Jacq. Fil. Ecl. 1. 13. t. 13.

S. aspidophylla. Rœm. et Schult. Syst. Mant. 1. 206.

S. trichostemmoides. Pursh! Fl. Am. Sept. 1. 19.

Hab. in America septentrionali: in Mexico *Moçino et Sessé!* in convalli Guanaxuatense Novæ Hispaniæ *Humboldt et Bonpland*, ad Missouri flumen *Lewis et Clark!* (*h. s. c. et v. s. sp.*)

Caules circiter pedales, glabri vel ad extremitatem ramorum tenuiter cano-pubescentes, ramis sæpe racemos excedentibus. Folia $1\frac{1}{2}$ -2-pollicaria, sæpius oblongo-linearia, nunc apice longe angustata, medio obscure et obtuse serrata, basi sæpius longe angustata, in var. β angustiora et glabriora. Verticillastri fere pollicem remoti, biflori vel rarius 2-4-flori. Calyces breviter pedicellati, striati, fructiferi valde aucti, basi inflati. Corolla cœrulea, (cum calyce) vix 4-linearis.

95. *S. LEPTOPHYLLA*, caule herbaceo adscendente ramoso glabro, foliis subsessilibus anguste linearibus acutis integerrimis glabris, floralibus deciduis, racemis simplicibus, verticillastris remotis subbifloris, calycibus tubulosis striatis glabris, labio superiore integro dentibusque labii inferioris acutis, corollis calyce subduplo longioribus, tubo incluso, labio superiore erecto, inferiore patente duplo longiore, lobis rotundatis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo breviter bifariam barbato.

Hab. in Mexico *Moçino et Sessé!* ad Christo *Karwinski!* (*v. s. sp. in herb. Lambert et Mus. Reg. Monac.*)

Valde affinis *S. lanceolatae*, a qua differt foliis angustioribus glaberrimis et floribus majoribus; a *S. angustifolia* caule glabro et floribus multo minoribus.

§ 2. BRACHYANTHÆ. *Folia floralia bractæformia decidua. Calyces glabri villosi vel cano-tomentosi nec dense tomentoso-lanati. Corolla 4-linearis vel longior. Tubus inclusus vel vix calyce plus dimidio longior. Labium inferius superiore plerumque longius, planum, lobis rotundatis, medio maximo. Flores cœrulei vel rarius albidii vel pallide carnei nec coccinei nec flavidi.*

a ANGUSTIFOLIÆ. *Folia linearia vel lanceolata, basi angustata vel cuneata, plerumque petiolata.*

96. *S. ANGUSTIFOLIA* (Cav.! Ic. 4. 9. t. 317), caulibus herbaceis erectis glabris vel patentim pilosis, foliis subsessilibus oblongo-linearibus utrinque angustatis integerrimis serratisve glabris, floralibus bractæformibus lineari-lanceolatis deciduis, racemis elongatis simplicibus, verticillastris omnibus distantibus 2-6-floris, calycibus tubulosis striatis hispidis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce duplo longioribus, tubo calycem æquante ventricosus, labio superiore extus pubescente, inferiore duplo longiore lobis rotundatis, medio maximo emarginato bifido, connectivis postice deflexis longitudinaliter connatis, stylo bifariam barbato.

S. reptans. Jacq. ! Hort. Schænbr. 3. 38. t. 319.

S. virgata. Ort. ! Dec. 3.

S. angustifolia. Bot. Reg. 18. t. 1554.

Hab. in Mexico : in locis alsis prope Totonilco el Grande et speluncam Dantæ Humboldt et Bonpland, in montosis prope Tlalpuxahua G. J. Graham ! Keerl ! (h. s. sp. comm. a cl. Graham.)

Caules complures, 1-1½-pedales, virgati, subramosi, basi foliosi, obtuse tetragoni, striati, ex omni parte vel saltem ad nodos pilis longis albidis patentibus ciliati. Folia in speciminibus spontaneis 1½-pollicaria, exacte linearia vel basi parum angustata, obtusa vel acuta, integerrima vel hinc inde serraturis remotis notata, in planta culta latiora magis dentata, floralia calyce duplo triplove breviora. Racemus 6-9-pollicaris. Verticillastri fere pollicem remoti. Calyx sæpe cærulescens, pilis albidis erectis vel patulis hispidus. Corolla azurea, magnitudine fere *S. Grahami*. Connectiva postice dentata, linearia. Stylus vix exsertus, lobo superiore subulato longissimo.

97. *S. PALLIDA*, caule herbaceo procumbente glabro, ramis ascendentibus canescentibus, foliis petiolatis ovato-lanceolatis linearibusve acuminatis basi angustatis, junioribus cano-tomentosis demum glabratis, floralibus basi ovatis longe linear-acuminatis deciduis, racemis simplicibus elongatis, verticillastris remotis subsexfloris, calycibus subsessilibus tubulosis striatis cano-tomentosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce subduplo longioribus extus pubescentibus, tubo ventricoso calycem æquante, labio superiore erecto, inferiore duplo longiore lobis rotundatis, connectivis postice linear-dilatatis deflexis longitudinaliter connatis, stylo subtus brevissime pubescente.

S. canescens. Benth. in herb. Mus. Reg. Berol. MSS. non Meyer.

Hab. in Brasilia meridionali Sello ! ad Buenos Ayres Parker ! (h. s. sp. e Mus. Reg. Berol.)

Habitus fere *S. lanceolata*, sed caulis magis procumbens, elongatus, ramis canescentibus. Folia acutiora. Racemi fere *S. serrata*. Flores magnitudine *Stachydis annuæ*.

98. *S. AZUREA* (Lam. Diar. Hist. Nat. 1. 409), caule herbaceo erecto glabro, foliis petiolatis oblongo-lanceolatis linearibusve obtusiusculis basi longe angustatis subserratis utrinque viridibus glabris, floralibus lanceolato-linearibus deciduis, racemis simplicibus elongatis, verticillastris distantibus subsexfloris, calycibus subsessilibus tubulosis striatis glabriusculis, labio superiore integro dentibusque labii inferioris latis acutiusculis, corollis calyce plus duplo longioribus extus pubescentibus, tubo ventricoso calyce dimidio longiore, labio superiore erecto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis longitudinaliter connatis, stylo bifariam barbato.

S. acuminata. Pers. Syn. 1. 24.

S. acuminatissima. Vent. ! Hort. Cels. 50. t. 50.

S. angustifolia. Mich. ! Fl. Bor. Am. 1. 13. non Cav.

S. elata. Poir. Dict. 6. 625.

S. mexicana. Walt. Fl. Carol. 65. non Linn.

S. azurea. Bot. Mag. 42. t. 1728.

Hab. in Americæ septentrionalis civitatibus australioribus : in Carolina Richard, Alabama Yates ! Georgia superiore Elliott, Florida orientali Bartram ! ad Jacksonville in Novo Aureliano Drummond ! (h. s. sp. a Drumm. lectam.)

Herba pluripedalis, viridis vel cœrulescens. Folia 2-3-pollicaria, rigidiuscula, sæpe integerrima vel dentibus paucis hinc inde notata, superiora anguste linearia, floralia vix decidua calyce breviora. Verticillastri subsecundi. Calyx viridis vel cœrulescens, glaber vel tenuissime cano-pubescent, 3 lin. longus. Corolla semipollicaris, extus pubescens, cœrulea. Styli lobus superior inferiore duplo longior.

99. *S. PITCHERI* (Torrey MSS.), caule herbaceo erecto tomentoso pubescente, foliis petiolatis oblongo-lanceolatis linearibusve acutis subserratis basi longe angustatis utrinque molliter tomentosis, floralibus lanceolato-linearibus deciduis, racemis simplicibus elongatis, verticillastris distantibus 6-15-floris, calycibus subsessilibus tubulosis striatis villosis, labio superiore integro dentibusque labii inferioris latis obtusis, corollis calyce plus duplo longioribus extus pubescentibus, tubo ventricosso calyce dimidio longiore, labio superiore erecto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo barbato.

Hab. in America septentrionali ad Red River *Pitcher!* (*h. s. sp. comm. a cl. Torrey.*)

Habitus *S. azureæ*, sed tota pubescentia molli subcanescente induta, flores numerosiores, et calyces majores dentibus obtusioribus.

100. *S. LÆVIS*, caule herbaceo erecto glabro, foliis petiolatis oblongo-lanceolatis utrinque longe angustatis remote serratis glabris, floralibus membranaceis lato-rotundatis ciliatis obtusis deciduis, racemo simplici longe pedunculato, verticillastris 6-10-floris, inferioribus remotis, supremis approximatis, calycibus pedicellatis campanulatis ciliatis, labio superiore subintegro dentibusque labii inferioris lanceolatis cuspidatis, corollis calyce triplo longioribus, tubo subexserto ventricosso, labio superiore glabro erecto, inferiore subtriplo longiore lobis rotundatis, connectivis postice deflexis lato-linearibus longitudinaliter connatis, stylo longe barbato.

Hab. in Mexico *Keerl! Moçino et Sessé!* prope Tlalpuxahua *G. J. Graham.* (*h. s. sp. comm. a cl. Graham, et v. s. sp. in herb. Lambert et Mus. Reg. Monac.*)

Caulis subteres glaberrimus, lineis viridibus et aureis striatus. Folia fere *S. uliginosæ*, at glaberrima. Verticillastri infimi 2-3 pollices distantes, supremi approximati. Folia floralia latissima, obtusa vel brevissime mucronulata, membranacea vel colorata, ante anthesin imbricata, subcomosa. Calyces pedicello vix longiores, profunde bilabiati, striati, basi pilis longis albis ciliati. Corollæ pallide cœruleæ (labio inferiore incluso), fere pollicares. Genitalia inclusa. Connectiva postice calloso-dentata.

Affinis *S. uliginosæ*, sed differt racemis simplicibus, verticillastris remotis paucifloris, calycibus ciliatis, corollis majoribus glabris, et aliis notis; a *Salvia stachyoide* Kunth (ex descriptione hujus) differt verticillastris distinctis glaberrimis, calycibus campanulatis nec tubulosis basi pilosis apice glabris nec incanovillosis, et glabritie caulis et foliorum.

101. *S. ULIGINOSA* (Benth. in Herb. Mus. Reg. Berol. MSS.), caule herbaceo erecto glabro vel villosso, foliis petiolatis oblongo-lanceolatis acutis serratis basi angustatis glabris vel pubescentibus, floralibus membranaceis lato-ovatis acuminatis deciduis, racemis densis longe pedunculatis subramosis, verticillastris multifloris, calycibus campanulatis, labio superiore subintegro dentibusque labii inferioris acuminatis, corollis calyce duplo longioribus, tubo subincluso ventricosso, labio superiore extus pubescente recto, inferiore duplo longiore lobis rotun-

datis, connectivis postice deflexis lato-linearibus longitudinaliter connatis, stylo supra breviter barbato.

β *rufescens*, caule foliorumque pagina inferiore rufo-pubescente.

Hab. in Brasilia: ad rivulos San Jose, Toropasso, &c. provinciæ Rio Grande et in uliginosis prope Estancia do Salto Missionum Uruguaiensium *A. de St. Hilaire!* in uliginosis Brasiliæ meridionalis *Sello!* ad Buenos Ayres *Parker!* β in sylvis cæduis ad viam a Minas ad Rio de Janeiro *A. de St. Hilaire!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. et Parker, \beta in herb. St. Hil.*)

Caules 2-6-pedales, virgati, ramosi, obtuse tetragoni, sulcati, glandulosi, glabriusculi vel pilis articulatis villosi. Petioli breves. Folia 2-4-pollicaria, forma variabilia, nunc vix 3-4 lin. lata basi longe angustata, nunc fere pollicem lata basi cuneata vel rarius rotundata, sæpius profunde serrata, viridia, membranacea, subtus nervosa, glaberrima vel utrinque pubescentia, subtus uti calyces glandulis nigris crebris punctata, floralia membranacea, flavescentia, longe acuminata, ante anthesin sæpius comosa, rarius fere abortiva, per anthesin decidua. Racemi 1-4, spicæformes, pedunculati, a foliis caulinis longe distantes. Verticillastri 10-20-flori, infimi subremoti, superiores dense approximati. Calyces subsessiles, glabri vel cano-pubescentes, striati vel læves, incani, colorati vel virides, dentibus lato-ovatis vel ovato-lanceolatis, superiore integro 1-3-mucronato, inferiore plus minusve cuspidato. Corolla cœrulea vel alba, magnitudine corollæ *S. polystachydis*. Connectiva sub insertione calloso-dentata. Stylus subexsertus, lobis subulatis, superiore duplo longiore.

Species more plantarum uliginosarum valde variabilis, sed vix dividenda.

102. *S. LAVANDULOIDES* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 231), caule herbaceo, ramis erectis cano-pubescentibus, foliis brevissime petiolatis oblongo-lanceolatis acutis basi cuneatis crenatis cano-pubescentibus subtus albidis, floralibus ovatis longe subulato-acuminatis deciduis, spicis simplicibus, verticillastris approximatis æqualibus subdecemfloris, calycibus tubuloso-campanulatis cano-pubescentibus, labio superiore integro dentibusque labii inferioris ovatis breviter mucronatis, corollis calyce dimidio longioribus, tubo incluso subæquali, labio superiore recto, inferiore duplo longiore lobis rotundatis, medio lato emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo incluso breviter barbato.

S. Humboldtiana. *Rœm. et Schult. Syst. Mant.* 1. 183.

S. lavandulæfolia. *Spreng. Syst.* 1. 58. non *Vahl.*

Hab. in Nova Hispania *Moçino et Sessé!* in regione temperata prope urbem Pazcuaro in litore lacus *Humboldt et Bonpland.* (*v. s. sp. in herb. Lambert.*)

Caules e basi ramoso plures, virgati, pube brevissima vel pilis brevibus reflexis canescentes. Folia 1½-2-pollicaria, rugosula, sæpius tomento brevi supra canescentia, subtus albida, nunc utrinque pilis adpressis pubescentia. Spicæ 2-3-pollicares, longe pedunculatæ, juniores apice foliis floralibus comosæ. Verticillastri omnes approximati vel infimo remoto. Calyx striatus, basi canescens, apice sæpius cœrulescens. Corolla pallide cœrulea, parva.

103. *S. STACHYOIDES* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 287. t. 138).

Hab. in montibus frigidis Mexicanis prope los Ioares et Santa Rosa de la Sierra *Humboldt et Bonpland.*

“*S. caule herbaceo subsimplici foliisque pubescentibus concoloribus lanceolatis acutis crenato-serratis, spica oblonga longe pedunculata, verticillis approximatis multifloris, calycibus cano-villosis.*

“*Herba erecta, 3-pedalis. Caulis tetragonus, pubescens, subramosis, pilis re-*

flexis. Folia opposita, breviter petiolata, lanceolata, crenato-serrata, basi angustata, viridia pilisque brevibus raris conspersa, 2-3-pollicaria. Petiolus 4-5-pollicaris, canaliculatus, pubescens. Spica sesquipollicaris, terminalis, longe pedunculata, verticillata, solitaria, interdum duæ axillares approximatae, verticillis multifloris valde approximatis, infimo distante. Bracteæ oblongæ, acuminato-subulatæ, pubescentes. Calyx tubulosus, striatus, incanus, villosio-hirtus, labio superiore integro acuto, inferiore bifido, laciniis acuminatis. Corollæ haud suppetunt, cœruleæ ex Bonpl."—*Kunth l. c.*

104. *S. ELONGATA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 287. t. 139), caule herbaceo erecto subsimplici cano-pubescente, foliis breviter petiolatis oblongis acutiusculis basi angustatis crenato-serratis glabriusculis vel subtus pubescentibus, floralibus ovato-lanceolatis hirsutis calycem æquantibus, spicis oblongis longe pedunculatis, verticillastris multifloris arcte approximatis, calycibus tubulosis striatis pilosis, labio superiore integro inferiorisque dentibus acutis, corollis calyce duplo longioribus, tubo vix exserto ventricosus, labio superiore recto, inferiore subtriplo longiore lobis rotundatis, medio lato emarginato, connectivis postice linearibus deflexis longitudinaliter connexis, stylo barbato.

S. betonica. *Rœm. et Schult. Syst. Mant.* 1. 188.

S. simplex. *Spreng. Syst.* 1. 58.

Hab. in Nova Hispania *Moçino et Sessé!* in declivitate montium occidentalium inter Ario et Aguasarco *Humboldt et Bonpland.* (v. s. *sp. in herb. Lambert.*)

Caules complures, subsimplices, 1-2-pedales, basi foliosi, superne subnudi. Folia sesquipollicaria, supra scabriuscula, subtus glabra vel nervis pubescentibus. Spicæ 1½-2-pollicares, dense villosæ. Calyces subcolorati. Corolla violacea, vix 4 lineas longa, extus pubescens.

105. *S. CORRUGATA* (Vahl! Enum. 1. 252), caule fruticoso, ramis rufo-tomentosis, foliis petiolatis oblongo-lanceolatis obtusis crenatis basi rotundatis rugosissimis supra glabriusculis subtus rufo-lanatis, floralibus deciduis, verticillastris sub-6-floris distantibus, calycibus campanulatis subglabris coloratis, labio superiore integro dentibusque labii inferioris obtusis, corollis calyce parum longioribus, tubo subincluso, labio superiore recto, inferiore longiore, connectivis postice linearibus deflexis longitudinaliter connatis.

Hab. in Peruvia *Vahl.* (v. s. *sp. in herb. Vahl.*)

Rami et foliorum pagina inferior lana rufa densissima vestiti. Folia bipollicaria, approximata. Calyces cœrulescentes. Corolla cœrulea, hirta.

106. *S. COLLINA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 288).

Hab. in collibus siccis montium Quitensium prope Riobamba Nuevo *Humboldt et Bonpland.*

"*S. fruticulosa*, ramis foliisque subtus albo-tomentosis supra pubescentibus lanceolato-oblongis obtusiusculis basi acutis crenatis, spica longe pedunculata, verticillis multifloris approximatis, calycibus albo-tomentosis.

"*Fruticulus erectus, ramosus, odoratissimus, ramis tetragonis albo-tomentosis, inferioribus sæpe decumbentibus. Folia opposita, breviter petiolata, lanceolato-oblonga, obtusiuscula, basi acuta, crenata, supra viridia, pubescentia, subtus albo-tomentosa, pollicaria. Spicæ terminales, pedunculatae, verticillatae, verticillis multifloris approximatis, inferioribus distantibus. Bracteæ lanceolatae, tomentosae, caducae.*

July 1833.

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Calyces campanulati, striati, bilabiati, albo-tomentosi, labio superiore ovato integro acuto, inferiore bipartito, laciniis acuminatis. Corollæ in specimine suppetente deciduæ, cœruleæ, labio inferiore albo-maculato ex Bonpl."—*Kunth l. c.*

b. OVATIFOLIÆ. *Folia petiolata ovato-rotundata ovata vel ovato-lanceolata basi rotundata truncata vel cuneata, rarius subsessilia basi cuneata.*

107. *S. ASSURGENS* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 293).

Hab. prope Pazcuaro Mexicanorum *Humboldt et Bonpland.*

"*S. caule herbaceo subramoso adscendente pubescente, foliis ovato-ellipticis utrinque acutis crenato-serratis glabriusculis, verticillis multifloris inferioribus distantibus, calycibus sericeo-hirsutis.*

"*Herba 10-12-pollicaris. Caulis adscendens, subramosus, tenuissime pubescens, tetragonus. Folia opposita, breviter petiolata, ovato-elliptica, utrinque acuta, crenato-serrata, utrinque glabriuscula venis subtus pubescentibus, bipollicaria. Spica terminalis, longe pedunculata, verticillata, tripollicaris, verticillis multifloris, inferioribus distantibus. Pedunculus 4-pollicaris. Flores magnitudine floris Stachydis annuæ. Calyx campanulatus, bilabiatus, pilis sericeis albidis hirsutus, labio superiore ovato obtuso brevissime mucronato, labio inferiore bifido, laciniis obtusis mucronatis. Corolla pallide violacea? (carnea ex Bonpl.), tubo superne ventricoso compresso calycem subæquante, labio superiore galeato concavo pubescente, inferiore triplo longiore trifido, lacinia intermedia maxima biloba, lobis rotundatis. Stamina inclusa.*"—*Kunth l. c.*

108. *S. SPICATA* (Rœm. et Schult. Syst. Mant. 1. 202).

S. pulchella. Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 288. t. 140. non DC.

S. Humboldtiana. Dietr. Gært. Lex. 7. 418.

S. Humboldtii. Spreng. Syst. 1. 64.

S. saligna. Willd. Herb. ex Link. Schw. et Dietr. Spec. Pl. 1. 308.

Hab. in Nova Hispania *Humboldt et Bonpland.*

"*S. fruticosa, ramis glabris junioribus cano-pubescentibus, foliis lanceolato-oblongis apicem versus obsolete crenatis supra pubescentibus subtus albo-tomentosis, verticillis multifloris approximatis, calycis albo-tomentosi labio superiore tridentato.*

"*Frutex tripedalis et altior, ramis tetragonis glabris, junioribus cano-pubescentibus. Folia opposita, brevissime petiolata, ovato-oblonga, acuta, integerrima, apicem versus crenata, supra viridia, pubescentia, subtus albo-tomentosa, subpollicaria. Spicæ terminales, solitariae, pedunculatae, verticillatae, verticillis multifloris approximatis. Flores 4 lin. longi. Bractæ ovatae, acuminatae, albo-tomentosae, apice cœrulescentes, caducae. Calyx campanulatus, striatus, albo-tomentosus, bilabiatus, labio superiore obtuso tridentato, inferiore obtuso bidentato, dentibus omnibus acutis. Corolla cœrulea, tubo calycem æquante, labio superiore galeato concavo emarginato pubescente, inferiore duplo longiore trifido, lobis rotundatis, intermedio duplo latiore emarginato-bilobo.*"—*Kunth l. c.*

109. *S. HELIANTHEMIFOLIA*, caule herbaceo erecto(?), ramis virgatis pubescentibus, foliis brevissime petiolatis oblongis acutis subserratis basi angustatis rugosulis glabris vel utrinque pubescentibus, floralibus minutissimis, racemis simplicibus, verticillastris 6-20-floris secundis remotis vel supremis approximatis, calycibus tubulosis nervis pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis calyce subduplo longioribus, tubo æquali incluso, labio superiore erecto extus pubescente, inferiore duplo longiore, lobis rotundatis, medio maximo bifido, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

β floralibus albis minoribus.

Hab. in Mexico: prope Tlalpuxahua *G. J. Graham! Keerl!*
 β prope San Martin *Graham. (h. s. sp. comm. a cl. Graham et Martius.)*

Caules basi ramosi, ramis subsimplicibus 1-1½-pedalibus, acute tetragoni, pallide virides, pilis brevibus reflexis pubescentes. Folia internodiis breviora, ½-1½-pollicaria, subtus pallida vel rarius concoloria. Racemi 2-6-pollicares. Verticillastri infimi sæpe longe remoti, supremi approximati, sæpius sub-10-flori. Flores 5-6 lin. vel in var. β 4-5 lin. longi. Calyces 3-lineares, etiam florentes reflexi, cœrulescentes vel in var. β albescentes, 8-nervi, nervis adpresso-pubescentibus, inter nervos glabri. Corollæ cœruleæ vel in var. β albæ. Filamenta sterilia fertilibus subæqualia, apice in antheram difformem dilatata. Connectiva staminum fertilium filamentis vix duplo longiora, corolla breviora. Stylus corollæ subæqualis, lobis subulatis, superiore longiore. Affinis *S. lavanduloidi*, a qua differt foliis dimidio brevioribus, racemo interrupto, et floribus secundis majoribus.

110. *S. SIDERITIDIS* (Presl MSS.), caule fruticoso, ramis erectis albo-tomentosis, foliis breviter petiolatis ovalibus obtusiusculis serrato-crenatis basi cuneatis rugosulis supra viridibus subtus albo-tomentosis, racemis brevibus, verticillastris subsexfloris, calycibus tubulosis villosis, labio superiore integro dentibusque labii inferioris acutis.

Hab. in Peruvia ad Huanuco *Hænke! (h. s. sp. comm. a cl. Presl.)*

Specimen mancum, sed species evidenter distinctissima. *S. spicata* affinis, sed calycis labio superiore integro differt. Corollam non vidi.

111. *S. CHAMÆDRYOIDES* (Cav. Ic. 2. 77. t. 197), caule suffruticoso procumbente, ramis cano-tomentosis, foliis petiolatis ovato-oblongis obtusis crenulatis basi angustatis vel rotundatis rugosis subtus cano-tomentosis, floralibus lato-ovatis acuminatis calyce majoribus deciduis, racemis simplicibus, verticillastris sub-6-floris, calycibus tubulosis striatis tomentosis, labio superiore integro dentibusque labii inferioris breviter cuspidatis, corollis calyce duplo longioribus extus glabris, tubo vix exserto ventricosus, labio superiore recto, inferiore duplo longiore, lobis rotundatis lateralibus abbreviatis, medio maximo bifido, connectivis postice deflexis linearibus, stylo supra barbato.

S. chamædrifolia. Andr. Bot. Rep. 6. t. 416.

S. chamædrys. Willd. Hort. Berol. 1. 29. t. 29.

S. chamædryoides. Sims Bot. Mag. 21. t. 808.

Hab. in Mexico *Moçino et Sesse! Karwinski! &c. (h. s. c. et v. s. sp. in herb. Lambert. Mus. Reg. Monac. &c.)*

Suffrutex humilis, ramosus, omni parte canescens. Folia rugosa, fere *Salviæ officinalis*, sed multoties minora. Racemi elongati. Verticillastri ante anthesin foliis floralibus imbricatis obtekti, fructiferi ultra pollicem remoti. Calyces breviter pedicellati, canescentes, labio superiore sæpe purpurascente. Corolla cœrulea, labio inferiore latissimo subplano. Genitalia corollam æquantia. Connectiva sub insertionem supra dentata.

112. *S. THYMOIDES*, caule suffruticoso ramosissimo canescente, foliis minimis subsessilibus ovalibus obtusis integerrimis canescentibus margine subrevolutis, floralibus ovatis acuminatis deciduis, racemis brevibus paucifloris, verticillastris distinctis laxè 2-4-floris, calycibus ovato-tubulosis striatis glanduloso-pubescentibus, labio superiore integro dentibusque labii inferioris obtusiusculis, corollis calyce duplo longioribus, tubo ventricosus calycem æquante, labio superiore recto,

inferiore duplo longiore, lobis rotundatis, medio emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo breviter barbato.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. *Lambert.*)

Suffrutex humilis, ramosissimus, canescens, facie *Thymi* vel *Gardoquiæ*. Folia vix 2 lineas longa, plana vel sæpius margine revoluta, rigida, plus minusve canotomentosa. Racemi 1-2-pollicares, verticillastris 2-4- sæpius bifloris. Calyx 3-4 lineas longus. Corolla cœrulescens.

113. *S. GLECHOMÆFOLIA* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 290. t. 141).

Hab. in Nova Hispania: inter urbem *Guanaxuato* et pagum *Sanctæ Rosæ Humboldt et Bonpland.*

“*S. caulibus herbaceis subsimplicibus superne pilosiusculis, foliis ovato-triangularibus obtusis basi subcuneatis crenatis glabriusculis, junioribus pilosiusculis, verticillis subquinquefloris remotis, calycis hirti labio superiore tricuspidato.*

“*Radix perpendicularis, perennis, multiceps. Caules complures, subsimplices, 1½-2-pollicares, procumbentes, apice adscendentes, subtetragoni, inferne glabri, superne pilosiusculi. Folia opposita, petiolata, ovato-triangularia, obtusa, basi brevissime cuneata, adulta glabra, pilis minutis adpressis raris conspersa, præsertim juniora in venis 6-9 lin. longa. Petioli 4-5 lin. longi, margine ciliati. Spica 3-4-pollicaris, pedunculata, verticillata, verticillis sub-5-floris remotis. Flores paulo minores quam in S. prunelloide. Bractæ ovatæ, acuminatæ, ciliatæ, longitudine floris, caduæ. Calyx campanulatus, striatus, bilabiatus, pilosus, labio superiore ovato tricuspidato, inferiore bipartito, laciniis cuspidatis. Corolla cœrulea, tubo brevi ventricoso compresso calyce paulo brevior, labio superiore galeato emarginato pubescente, labio inferiore triplo longiore trilobo subconvexo, lobis lateralibus abbreviatis rotundatis reflexis, intermedio multo majore emarginato bilobo. Stamina et stylus labium superius vix superantes.*”—*Kunth l. c.*

114. *S. NANA* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 289).

Hab. in Nova Hispania: in locis siccis prope fodinam *Valentianæ* in convalli *Guanaxuatensi Humboldt et Bonpland.*

“*S. herbacea, acaulis, foliis ovatis obtusis basi angustatis crenatis supra hispidulis subtus tomentoso-hirtis, spicis ovatis pedunculatis, verticillis subquadrifloris, calycis glanduloso-hirti labio superiore tridentato.*

“*Herba acaulis. Radix perpendicularis, perennis, crassa. Folia radicalia subsessilia, ovata, obtusa, basi angustata et subcuneata, crenata, rugoso-venosa, supra pilis sparsis adpressis obsita, subtus tomentoso-hirta, pollicaria et longiora. Spicæ radicales pedunculatæ, ovatæ, semipollicares, verticillis approximatis subquadrifloris. Pedunculi 3-4-pollicares, tetragoni, pilis patentibus glanduliferis obsiti. Calyx campanulatus, striatus, piloso-glandulosus, bilabiatus, labio superiore ovato-tridentato, dentibus subulatis, labio inferiore bifido, laciniis subulatis. Corolla a me haud visa, cœrulea ex Bonpl.*”—*Kunth l. c.*

115. *S. PRUNELLOIDES* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 289?), caulibus herbaceis subsimplicibus erectis piloso-pubescentibus, foliis petiolatis ovato-oblongis obtusis crenatis basi angustatis utrinque viridibus glabriusculis, floralibus ovatis acuminatis deciduis, racemis simplicibus longe pedunculatis, verticillastris remotis subsecundis, supremis approximatis sex-decemfloris, calycibus campanulatis striatis sericeo-hirtis, labio superiore breviter tridentato, inferioris dentibus lanceolatis acutis, corollis calyce subtriplo longioribus extus pubescentibus, tubo calycem æquante ventricoso, labio superiore

recto, inferiore subtriplo longiore, lobis rotundatis, medio lato emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

Hab. in Nova Hispania *Moçino et Sessé ! Karwinski !* in scopulis montis ignivomi Jorullo Mexicanorum *Humboldt et Bonpland.* (v. s. sp. in herb. *Lambert et Mus. Reg. Monac.*)

Caules e basi perenni complures, basi foliosi, adscendentes, ramis erectis 1-1½-pedalibus tetragonis. Folia nunc omnino glabra, sæpius plus minusve præsertim in nervos hirsuta. Calyces cærulescentes. Corollæ cæruleæ. Folia fere *Prunella vulgaris*. Racemus et flores *S. lævis*, sed majores. A descriptione Kunthiana differt statura elatiore, sed verosimiliter eadem species.

116. *S. ARENARIA* (St. Hil. MSS.), fruticosa, ramis glabris, foliis petiolatis oblongis lanceolatisve acuminatis serrato-crenatis basi cuneatis angustatisve utrinque viridibus glabris, floralibus ovatis acuminatis deciduis, racemis brevibus simplicibus, verticillastris 4-6-floris secundis, calycibus tubuloso-campanulatis striatis glabris lævibus, labio superiore integro dentibusque labii inferioris ovatis acuminatis, corollis calyce subduplo longioribus extus glabriusculis, tubo subexserto ventricosus, labio superiore recto, inferiore subbreuiore lobis rotundatis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo bifariam barbato.

Hab. in Brasilia: in arenosis Serra Negra ad limites provinciarum Minas Geraes et Rio de Janeiro *A. de St. Hilaire !* (v. s. sp. in herb. *St. Hil.*)

Frutex 4-pedalis, ramosissimus. Folia 2-3-pollicaria.

117. *S. SERRATA* (Benth. in Herb. Mus. Reg. Berol. MSS.), caule herbaceo erecto subsimplici glabriusculo, foliis petiolatis ovatis oblongis lanceolatisve acutis grosse irregulariter serratis basi cuneatis rotundatisve glabris, floralibus lanceolato-linearibus calyce brevioribus reflexis vel deciduis, racemo elongato simplici, verticillastris omnibus remotis 6-10-floris, calycibus pedicellatis tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris acutiusculis, corollis calyce subtriplo longioribus extus pubescentibus, tubo subexserto ventricosus, labio superiore erecto integro, inferiore duplo longiore, lobis rotundatis, medio maximo emarginato, connectivis postice obtuse dentatis deflexis dilatato-linearibus longitudinaliter connatis, stylo barbato.

Hab. in Brasilia meridionali *Sello !* ad rivulum de las Viboras in Republica Argentina *A. de St. Hilaire !* (h. s. sp. e *Mus. Reg. Berol.* et v. s. sp. in herb. *St. Hil.*)

Habitus *S. uliginosæ*, sed inflorescentia et floribus diversa. Folia latiora, profundius serrata. Racemi 4-6-pollicares. Verticillastri semipollicem distantes, subsecundi. Calyces 4-5-lineares. Corollæ cæruleæ, fere pollicares. Stylus vix exsertus, lobo superiore inferiorem duplo superante, subtus longe barbatus. Achenia oblongo-triquetra, lævia.

118. *S. URUGUAYENSIS* (St. Hil. MSS.), caule herbaceo erecto glabriusculo, foliis petiolatis ovato-lanceolatis oblongisve acutis serrato-crenatis basi rotundato-cuneatis glabriusculis utrinque viridibus vel subtus pallidis, floralibus ovatis acuminatis deciduis, racemis simplicibus elongatis, verticillastris remotis 6-10-floris, calycibus subsessilibus

tubulosis striatis cano-villosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce subduplo longioribus extus pubescentibus, tubo ventricoso calycem superante, labio superiore erecto, inferiore duplo longiore, lobis rotundatis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo subtus barbato.

Hab. in Brasilia: ad ripas fluminis Uruguay in campo San Joze provinciæ Rio Grande do Sul *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*)

Valde affinis *S. pallidæ*, sed caules erecti, folia latiora minus acuminata, et flores numerosiores. An ejus varietas?

119. *S. URTICÆFOLIA* (Linn. ! Spec. 34), caule herbaceo erecto pilis subglandulosis villosis, foliis breviter petiolatis ovato-rhomboideis acutiusculis crenatis basi rotundato-subcordatis ad petiolum cuneatis glabriusculis, floralibus lato-ovatis deciduis, verticillastris multifloris remotis, calycibus breviter pedicellatis campanulatis villosis-viscosis, labio superiore integro dentibusque labii inferioris lato-ovatis acutiusculis, corollis calyce subduplo longioribus extus pubescentibus, labio superiore erecto, inferiore triplo longiore, lobis lato-rotundatis deflexis, medio emarginato-bifido, connectivis postice lineari-dilatatis deflexis longitudinaliter connatis, stylo barbato.

Hab. in America septentrionali: in remotis occidentalibus Virginie et Carolinæ *Michaux*, in Carolina septentrionali *Schweinitz!* in Georgia *Bartram!* (h. s. sp.)

Caules tetragoni, sulcati, inferne subglabri, superne pilis sæpe glandulosis villosi. Folia fere *S. tiliæfoliæ*, sed angustiora, sæpius longe acuminata, irregulariter dentata, glabra, petiolo multo brevior subalato-dilatato. Corollæ cœruleæ, cum labio inferiore vix 5 lineas longæ. Calyces ovato-campanulati nec cylindrici. Verticillastri 10-20-flori, demum remoti, pollicem vel inferiores sesquipollicem distantes. Stamina inclusa. Stylus breviter exsertus, lobis subulatis, superiore duplo longiore.

120. *S. GRACILIS*, caule herbaceo(?) erecto glabriusculo, foliis longe petiolatis ovatis acuminatis basi rotundatis serratis utrinque piloso-pubescentibus, floralibus ovatis acuminatis coloratis deciduis, racemis simplicibus, verticillastris laxè sex-decemfloris infimis remotis supremis approximatis, calycibus breviter pedicellatis campanulatis striatis coloratis glabris, labio supremo integro inferiorisque dentibus setaceo-acuminatis, corollis calyce duplo longioribus, tubo calycem æquante ventricoso, labio superiore recto, inferiore duplo longiore, lobis rotundatis, medio lato emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. *Lambert.*)

Caulis (vel ramus?) simplex, purpurascens. Folia flaccida, sesquipollicaria, supra pilis brevibus adpressis subtus pilis longioribus pubescentia. Racemus 2-3-pollicaris, glaber, rubescens. Flores parvi, numerosi, carnei, magnitudine *S. carneæ*, a qua hæc species differt præcipue foliis angustioribus acuminatis basi rotundatis nec cordatis, racemo glabro, et stylo barbato.

121. *S. LEPTOSTACHYS*, caule herbaceo erecto ramoso cano-pubescente, foliis longe petiolatis ovato-rotundatis acutis basi truncatis utrinque viridibus tenuissime pubescentibus, floralibus ovatis subulato-acuminatis deciduis, racemis simplicibus elongatis, verticillastris demum omnibus remotis subsexfloris, calycibus ovato-tubulosis striatis

incanis, labio superiore integro inferiorisque dentibus acuminatis, corollis calyce duplo longioribus, tubo calycem æquante subventricosus, labio superiore recto, inferioris lobis rotundatis, medio lato emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. Lambert.)

Folia *S. tiliæfoliæ*, petiolo 1½-2-pollicari et ultra, superiora sessiliora. Racemus demum ultra pedalis, verticillastris inferioribus pollicem, supremis semipollicem remotis. Calyces *S. lavanduloidis*. Corollæ cœruleæ, duplo majores quam in *S. lavanduloide*.

122. *S. MEMBRANACEA*, caule herbaceo(?) erecto glabro, foliis longe petiolatis amplis lato-ovatis acutis crenatis basi rotundatis vel truncatis glabris, floralibus deciduis, racemis elongatis simplicibus, verticillastris omnibus remotis laxis subdecemfloris, calycibus pedicellatis nutantibus campanulatis glabris, labio superiore integro dentibusque labii inferioris ovatis breviter setaceo-acuminatis, corollis calyce duplo longioribus, tubo calycem æquante ventricosus, labio superiore recto, inferiore duplo longiore, lobis lato-rotundatis, medio maximo emarginato, connectivis postice elongato-linearibus deflexis longitudinaliter connatis, stylo barbato.

β *acuminata*, foliis utrinque longe angustatis, corollis brevioribus.

Hab. in Mexico *Moçino et Sessé!* β in Guayaquil *Tafalla!* (v. s. sp. α et β in herb. Lambert.)

Herba videtur 2-3-pedalis, ex omni parte glaberrima. Folia 3-6-pollicaria, tenuia, membranacea, subtus sæpe purpurascentia. Racemus fere pedalis, verticillastris regulariter distantibus æqualibus laxis. Calyces sæpius leviter purpurascentes. Corollæ cœruleæ, magnitudine circiter *S. angustifoliæ*.

123. *S. RHOMBIFOLIA* (Ruiz et Pav.! Fl. Per. et Chil. 1. 26. t. 36. f. b), caule herbaceo erecto ramoso pubescente, foliis petiolatis lato-ovatis rhombeisve basi subcordatis pubescentibus, floralibus ovato-lanceolatis deciduis, racemis simplicibus paucifloris, verticillastris sub-6-floris remotis, calycibus ovatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce dimidio longioribus, tubo incluso ventricosus, labio superiore recto, inferiore duplo longiore, lobis rotundatis, medio emarginato, connectivis postice linearibus subdilatis deflexis longitudinaliter connatis, stylo glabro.

S. foliosa. Benth. in Bot. Reg. 17. t. 1429.

S. pilosa. Vahl! Enum. 1. 240.

β *glabrior*, calycibus tenuioribus glabris.

Hab. in Peruvia: in collibus arenosis Lomas de Atiquipa et Pongo dictis in Camanæ provincia, et copiose in altis Chancay *Ruiz et Pavon!* prope Limam *Cruikshanks!* in Peruvia meridionali *Cuming!* in Mexico *G. J. Graham?** β prope Limam *Cruikshanks!* (h. s. sp.)

* Seeds of this plant were raised in the garden of the Horticultural Society of London amongst those sent by Mr. Graham from Mexico. This circumstance, and several points in which the plant does not quite agree with Ruiz and Pavon's figure, induced me to publish it as a new Mexican species, under the name of *S. foliosa*; but I have since ascertained it to be the true plant described as *S. rhombifolia*. I suppose that the seeds got mixed, by mistake, with those from Mr. Graham.

Herba annua, pedalis, erecta, valde ramosa. Caulis tetragonus, pubescens, præsertim in latera dua opposita ætate glabratus. Folia numerosa, 1½-2 poll. longa et totidem lata, grosse crenata, sæpe bullata, inferiora petiolata, suprema sæpe sessilia, juniora pubescenti-villosa, demum sæpe glabrata, viridia, subtus pallidiora, floralia calyce breviora, glabra, fuscescentia. Calyces sæpius colorati, breviter pedicellati, labiis rectis. Genitalia exserta. Stylus filiformis, lobo inferiore subnullo. Achenia triquetra, lævia. Var. β differt habitu graciliore glabriore, foliis minoribus potius ovatis quam rhombeis, calycibus longius pedicellatis tenuioribus glabris, sed vix ut species distinguenda.

124. *S. TAFALLÆ*, caule herbaceo erecto ramoso villosa, foliis petiolatis ovatis crenatis basi rotundatis vel cuneatis hispidulis, floralibus ovatis acutis demum deciduis, racemis simplicibus, verticillis 6-10-floris remotis, calycibus ovatis nervosis villosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce dimidio longioribus, tubo incluso ventricosus, labio superiore recto, inferiore duplo longiore, lobis rotundatis, medio emarginato, connectivis postice linearibus subdilatis deflexis longitudinaliter connatis, stylo glabro.

Hab. ad Tarmam Peruviae *Tafalla*! (v. s. sp. in herb. Lambert.)

Radix herbacea, annua, pedalis. Caulis basi ramosus, ramis erectis subsimplicibus parce foliosis. Folia inferiora longe petiolata, limbus parvus, vix pollicaris, superiora minora, remotiora, sessiliora, floralia calyce dimidio breviora. Racemi 4-6-pollicares. Verticillastri æquales, inferiores pollicem vel sesquipollicem remoti. Calyces 3-4-lineares, labio superiore paullo incurvato. Corolla *S. rhombifoliae*. Affinis *S. miti*, at caule herbaceo annuo, villositate, et aliis notis diversa; et *S. violaceæ*, sed in hac corolla calyce triplo longior.

125. *S. VIOLACEA* (Ruiz et Pav.! Fl. Per. et Chil. 1. 26. t. 43. f. b.)

Hab. in Tarmæ provinciæ Peruvianæ præruptis calidis *Ruiz et Pavon*.

“*S. foliis ovatis crenatis, floribus spicatis, verticillis sexfloris, labio corollæ dependente.*”

“*Planta bipedalis, herbacea, hirsuta, annua. Radix fasciculata, fibrosa. Caulis erectus, ramosus, tetragonus. Rami consimiles. Folia ovata, acuta, crenata, rugosa, obtusa. Spicæ terminales, breves, erectæ. Flores verticillati, seni, breviter pedicellati, bracteis oppositis ovatis concavis stipati. Corolla cœruleo-violacea, calyce triplo longior, labio inferiore lato, galea longiore dependente.*”—*Ruiz et Pav. l. c.*

126. *S. GLANDULIFERA* (Cav. Ann. Hist. Nat. 2. 3).

Hab. in Chimborazo *Cavanilles*.

“*S. foliis ovatis serratis villosis, ramis, bracteis calycibusque piloso-glandulosis.*”—*Vahl l. c.*

“*Uni-tripedalis, alterne ramosus, pilis rigidis glanduliferis. Folia petiolata, pollicem longa, 5 lin. lata, utrinque villosa. Verticilli 6-flori, bracteis acutis brevibus. Calyx laciniis obtusiusculis. Corolla calyce vix duplo longior, violaceo-purpurea, labio superiore brevior, inferiore tripartito, lacinia intermedia multo majore. Stamina exserta.*”—*Cav. ex Rœm. et Schult. Syst. 1. 217.*

127. *S. HIRTA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 296).

Hab. in Andibus Peruvianorum prope pagum Ayavaca et villam Lucarque *Humboldt et Bonpland*.

“*S. caule fruticoso erecto bifariam piloso, foliis ovato-oblongis acuminatis crenato-serratis subtus incano-pubescentibus, spicis paniculatis, verticillis remotis paucifloris, bracteis ovatis acuminatis hirsutis calyce brevioribus deciduis, calycibus subglanduloso-pilosis.*”

“*Frutex erectus, ramosus, ramis tetragonis glabris lineis duabus oppositis pilosis instructis. Folia opposita, petiolata, ovato-oblonga, acuminata, crenato-ser-*

rata, supra viridia et tenuissime pubescentia, subtus incano-pubescentia, bipollicaria. Petiolus subpollicaris, canaliculatus, interne pilosus. Spicæ verticillatæ, paniculatæ, verticillis remotis paucifloris, pedunculo pedicellisque hirsutis pilis glanduliferis viscidis. Bracteæ subrotundo-ovatæ, acuminato-cuspidatæ, hirsutæ, calyce breviores, deciduæ. Calyx tubuloso-campanulatus, bilabiatus, striatus, hirtus pilis glanduliferis, labio superiore acuminato, inferiore bifido laciniis acuminato-mucronatis. Corolla haud suppetit, purpurea, calyce triplo longior, superne hirsuta, ex Bonpl. Stamina longe exserta. *S. glanduliferæ* Cav. affinis."—*Kunth l. c.*

128. *S. CRUIKSHANKSII*, caule herbaceo (?) erecto glabro vel pubescente, foliis breviter petiolatis ovatis obtusis crenatis basi rotundatis vel subcordatis glabris vel subtus pubescentibus, floralibus deciduis, racemis simplicibus, verticillastris subsexfloris remotis subsecundis, calycibus tubuloso-campanulatis striatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce triplo longioribus, tubo incluso ventricosus, labio superiore recto, inferiore triplo longiore lobis rotundatis, medio maximo emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

S. rhombifolia β. *Hook. Bot. Misc.*

Hab. in Peruvia: in valle Cantæ prope Obrajillo *Cruikshanks!* ad Huamantanga *Mathews!* (*h. s. sp. comm. a cl. Lindley et v. s. sp. in herb. Hooker.*)

Caulis videtur perennis vel suffruticosa, pedalis, basi denudatus, medio foliosus, glaber, vel apice tenuissime pubescens. Folia 1-1½-pollicaria, viridia, venosa, glaberrima, remote crenata, suprema sæpe integerrima. Verticillastri inferiores ultra pollicem remoti, sæpius 6-flori, rarius 2-4- vel 8-10-flori. Calyces subsessiles. Corollæ cœruleæ, glabriusculæ, cum labio inferiore 7-8-lineares. Affinis *S. incurvatæ*, in qua vero folia majora, acutiora, subtus albo-tomentosa, calyces majores, corollæ labium inferius minus; a *S. rhombifolia* foliis, inflorescentia et corollis distinctissima.

129. *S. GALEATA* (Ruiz et Pav. Fl. Per. et Chil. 1. 27. t. 42. f. a.)

Hab. in circuitu Muña Peruviae locis aridis *Ruiz et Pavon.*

"*S. foliis ovalibus serratis, calycis labio superiore galeato, corollæ labio superiore convoluto.*

"*Planta fruticosa. Caulis 3-pedalis, ramosissimus, brachiatus, inferne subteres, nudus. Rami brachiati, tetragoni, post exsiccationem ferruginei. Folia subsessilia, deflexa, ovalia ovataque, serrata, venosissima, rugosa, aspera, leviter pubescentia. Spicæ terminales, ternæ, erectæ, intermedia longiore. Flores verticillati, breviter pedicellati. Verticilli 6-10-flori, patentes, bracteolis 2 ovatis oppositis caducis stipati. Calyx ringens, superne dilatatus, ventricosus, labio inferiore concavo bifido inflexo, superiore concavo galea majori. Corolla albo-violacea, calyce duplo longior, labio inferiore trifido laciniis ovatis, superiore angustato inferne convoluto superne patulo stamina stylumque involvente.*"—*Ruiz et Pav. l. c.*

130. *S. MITIS* (Ruiz et Pav. Fl. Per. et Chil. 1. 27).

Hab. in præruptis calidis Cantæ provinciæ Peruvianæ ad Obrajillo vicum *Ruiz et Pavon.*

"*S. foliis ovatis acutis serratis tomentosis, spicis terminalibus intermedia longiore aphylla, verticillis multifloris.*

"*Planta suffruticosa, bipedalis. Caulis erectus, ramosus, brachiatus, tetragonus, sulcatus. Rami consimiles, leviter pubescentes, mitissimi. Folia petiolata, ovata, acuta, serrata, rugosa, venosissima, tomentosa, subtus incana. Spicæ terminales, intermedia longiore aphylla. Flores verticillati, secundi, pedicellati. Verticilli*

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6-12-flori. Bracteæ oppositæ, ovales, acuminatæ, pubescentes, caducæ. Calyces bilabiati, 1-2-nerves, pubescentes, subcampanulati, superne lividi, labio superiore integro acuto brevior parum incurvo, inferiore bifido acuto. Corolla albo-cærulea, calyce paulo longior, extus pubescens. Stamina longitudine corollæ. Stylus superne villosus. Stigmata exserta. Semina trigona, venosa, fulva."—*Ruiz et Pav. l. c.*

131. *S. INCURVATA* (Ruiz et Pav. ! Fl. Per. et Chil. 1. 24. t. 42. f. b), caule herbaceo erecto tenuiter cano-tomentoso, foliis petiolatis ovatis acutis serratis basi rotundatis vel cordatis subtus mollissime albo-tomentosis, floralibus deciduis, racemis simplicibus, verticillastris 4-6-floris remotis, calycibus tubuloso-campanulatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acuminatis, corollis calyce duplo longioribus, tubo incluso ventricoso, labio superiore recto, inferiore longiore lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Peruviae circuitu Muña *Ruiz et Pavon* ! (v. s. sp. in herb. Lambert.)

Herba bipedalis. Folia bipollicaria, ad medium caulis approximata, deflexa. Calycis fructiferi labia incurva. Corolla purpureo-cærulea.

132. *S. HISPANICA* (Linn. ! Spec. 37), caule herbaceo erecto pubescente, foliis petiolatis ovatis acutis crenato-serratis basi angustatis vel cuneatis glabris, floralibus ovatis acuminatis ciliatis subpersistentibus, racemis densis ramosis, verticillastris multifloris approximatis, calycibus inflato-tubulosis molliter pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis calycem vix excedentibus, tubo ventricoso, labio superiore erecto integro, inferiore longiore lobis lateralibus oblongis reflexis, connectivis postice lineari-dilatatis deflexis longitudinaliter connatis, stylo barbato.

S. hispanica. Bot. Reg. 5. t. 359.

S. tetragona. Mæsch. Meth. 373.

S. prismatica. Cav. Descr. 14.

Hab. in America æquinotiali : in regno Quitense prope Chillo *Humboldt et Bonpland*, in montibus ins. Jamaica *Herb. Hooker* ! in Mexico *Cavanilles* ; et ex America verosimiliter allata, in Europa australi sponte : in Hispania *Læfling*, in Pedemonte et Liguria v. *Charp ex Reichenbach Fl. Germ.*, in Olivetis Uneliæ *Allioni*. (h. s. c. et v. s. sp. ? in herb. Hook.)

Herba annua, 1-2-pedalis, caule crassiusculo, petiolis et nervis foliorum albidis pubescentibus. Folia longe petiolata, limbo 2-3-pollicari, floralia calyce breviora, longe acuminata. Racemi vel spicæ plures, subramosi, 2-4-pollicares, densi, albivirescentes. Verticillastri sæpius sub-10-flori. Calyces subsessiles, basi inflati, albidii, apice pallide virides, molliter pubescentes, 4-5-lineares. Corollæ extus glabræ, pallide cæruleæ, tubus calycem æquans, supra basin et ad faucem valde contractus. Labia brevia, inferiore vix longiore. Genitalia corollam æquantia.

133. *S. POLYSTACHYA* (Ort. ! Dec. 55), caule herbaceo erecto cano-pubescente, foliis petiolatis ovatis acuminatis serratis basi rotundatis vel cordatis supra rugosiusculis pubescentibus subtus nervosis cano-pubescentibus vel tomentosis, floralibus ovatis acuminatis deciduis, racemis densis ramosis, verticillastris multifloris approximatis subsecundis, calycibus tubuloso-campanulatis pubescentibus vel to-

mentoso-villosis, labio superiore integro dentibusque labii inferioris acutis, corollis calyce duplo longioribus, tubo incluso ventricoso, labio superiore recto pubescente, inferiore sublongiore lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo supra barbato.

S. polystachya. Cav. Ic. 1. 17. t. 27 (male). Humb. et Kunth Nov. Gen. et Sp. 2. 296.

S. cæsia. Humb. et Kunth! Nov. Gen. et Sp. Amer. 2. 295.

S. lineatifolia. Lag. Gen. et Sp. Nov. 2.

Hab. in Mexico: prope los Ioares et Puerto de Varientos, in montibus Guanaxuatensibus et ad littora lacus Pazcuarensis, in declivitate occidentali montium Mexicanorum Humboldt et Bonpland! prope Tlalpuxahua G. J. Graham! (h. s. sp. comm. a cl. Graham et v. s. sp. in herb. plur.)

Caules 1-2-pedales, tetragoni, sulcati, glabriusculi vel sæpius pubescentes. Folia 2-3-pollicaria, subtus sæpius tomentoso-pubescentia, canescentia. Spicæ 2-3-pollicares, plures, subramosæ, in paniculam semipedalem densam contractam dispositæ. Flores parvi, sæpe 15-20 in quoque verticillastro. Corollæ cœruleæ. Variat pubescentia foliorum et spicarum nunc tenui sæpius plus minusve tomentosa, calycibus rarius hispido-villosis, verticillastris omnibus approximatis vel infimis remotis.

In hortis occurrit etiam sub nomine *S. spicata*, *S. breynitica*, *S. eremitica*, *S. tetragonæ*, &c.

134. *S. KEERLII*, caule fruticoso? erecto pubescente, foliis petiolatis ovatis obtusis crenatis basi rotundato-truncatis cordatisve rugosissimis subtus cano-tomentosis, floralibus ovatis deciduis, racemis densis paniculato-ramosis, verticillastris multifloris approximatis, calycibus tubuloso-campanulatis piloso-hirtis, labio superiore integro dentibusque labii inferioris acutis, corollis calyce duplo longioribus, tubo incluso ventricoso, labio superiore recto pubescente, inferiore longiore lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro vel supra barbato.

Hab. in Mexico: prope Tlalpuxahua Keerl! (h. s. sp. comm. a cl. Martius.)

Affinis *S. polystachyæ*, sed foliis minoribus obtusis rugosissimis et basi magis cordatis, racemis brevioribus densioribus, et calycibus hirtis nec cano-tomentosis distincta.

c. CORDIFOLIÆ. Folia petiolata basi plus minusve cordata.

135. *S. SEMIATRATA* (Zuccar.! in Abhandl. Baier. Akad. Wiss. 1. 298), caule fruticoso, ramis tomentoso-pubescentibus, foliis petiolatis ovatis obtusis crenatis basi cordatis rugosissimis subtus albo-tomentosis, floralibus ovatis parvis deciduis, racemis simplicibus, verticillastris 4-8-floris distantibus, calycibus pedicellatis tubulosis striatis glanduloso-villosis, labio superiore integro dentibusque labii inferioris obtusis, corollis calyce duplo longioribus extus tenuiter pubescentibus, tubo breviter exserto ventricoso, labio superiore recto, inferiore subbreuiore, connectivis postice deflexis linearibus longitudinaliter connatis, stylo subtus barbato.

Hab. in Mexico Karwinski! (h. s. c. comm. a cl. Zuccarini.)

Affinis *S. scorodonix*, sed diversa calycibus duplo majoribus, pedicellis elongatis (3-4-linearibus), et corollæ labio inferiore breviori colore intensiore.

136. *S. scorodonia* (Poir. Dict. Suppl. 5. 46), caule fruticoso, ramis cano-tomentosis, foliis petiolatis ovatis oblongisve obtusis crenulatis basi rotundato-cordatis rugosissimis supra pubescentibus subtus pallidis vel albo-tomentosis, floralibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris 6-20-floris distantibus, calycibus subsessilibus tubuloso-campanulatis striatis glanduloso-villosis, labio superiore integro dentibusque labii inferioris obtusiusculis, corollis calyce duplo longioribus extus tenuiter pubescentibus, tubo breviter exserto ventricoso, labio superiore recto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo glabro.

S. melissodora. Lag. ! *Nov. Gen. et Sp. Pl.* 2.

S. hirta. Schrank in Syll. Pl. Soc. Ratisb. 2. 60?*

Hab. in Mexico Moçino et Sessé! Karwinski? (*h. s. c. comm. a cl. Delile e hort. Par. et v. s. sp. in herb. Lambert et Mus. Reg. Monac.*?)

Rami rigidi, patentes, nunc tomento cano undique pubescentes, ætate sæpe glabrati, purpurascentes. Folia 1-2-pollicaria, juniora vel omnia subtus cano-tomentosa. Racemi 2-4-pollicares, solitarii vel subpaniculati, verticillastris vix semipollicem distantibus. Pedicelli vix lineam longi. Calyces 2-3-lineares, viscosi. Corollæ cœruleæ, basi albidæ, fere *S. amarissimæ*, at paullo minores. Labium superius breviter emarginatum, inferioris lobus medius maximus emarginatus. Stamina sterilia rudimenta parva, clavata. Connectiva ad insertionem edentula. Planta forma foliorum, copia tomenti, et inflorescentia variat. Specimen mancum Karwinskianum in herbario Regio Monacensi differt foliis multo minoribus tenuioribus et racemo minus viscoso, sed verosimiliter ad hanc speciem pertinet.

137. *S. amarissima* (Ort. ! Dec. 4), caule herbaceo erecto ramoso patentim piloso-hispido, foliis petiolatis ovatis cordatis crenatis rugosis glabriusculis subtus canescentibus, floralibus ovatis acuminatis deciduis, racemis simplicibus densifloris, verticillastris distinctis subremotis sub-10-floris, calycibus tubuloso-campanulatis striatis villosis, labio superiore integro dentibusque labii inferioris acutiusculis, corollis calyce subtriplo longioribus, tubo calycem æquante ventricoso, labio superiore recto glabriusculo, inferiore subtriplo longiore lobis rotundatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo supra barbato.

S. circinata. Cav. *Ic.* 4. 9. t. 318.

S. amara. Jacq. *Hort. Schænbr.* 3. t. 255.

S. nepetoides. Humb. et Kunth ! *Nov. Gen. et Sp. Amer.* 2. 299. t. 150.

S. amarissima. Bot. Reg. 4. t. 347.

* “ *S. fruticosa*, glutinosa, foliis lanceolatis rugosis inæqualiter crenatis, crenis undulato-reflexis, calycibus compressis, corollæ lobo inferiore concavo.

“ Omnis planta hirsutiae brevi viscosa obducitur, quæ in caule etiam postquam ligneam duritiem adeptus est adhuc perdurat; odor hujus visciditatis non inamœnus. Caulis altitudinem trium pedum et quod superat adipiscitur; folia quotannis dejicit, quæ lanceolata sunt et inferiora quidem petiolata, superiora sessilia, omnia valde rugosa, crenata, crenis inæqualibus reflexisque, unde margo formam undulatam et subcavam refert. Inflorescentia terminalis, subpaupercula, verticillata. Verticilli inferiores sexflori, superiores numerum ita minuunt ut etiam nonnisi biflori occurrant, summi verticilli omnino steriles. Labium calycis superius tridentatum, inferius bifidum. Corolla alba, levissime in roseum vergens, labium inferius trifidum laciniis lateralibus oblongis obtusis, intermedia lata concava subemarginata.”—*Schrank l. c.*

An huc an ad *S. semiatrocam* referenda?

Hab. in Mexico: prope Tlalpuxahua *G. J. Graham!* in locis alpinis Novæ Hispaniæ inter Temascatio et Guanaxuato *Humboldt et Bonpland!* (*h. s. sp. comm. a cl. Graham et v. s. sp. in herb. plur.*)

Caules 2-pedales, pilis longis patentibus sæpe glandulosis hispidi. Petioli pollicares. Folia sesquipollicaria nervis pubescentibus, cæterum glabra, supra rugosa, viridia, subtus pallida vel canescentia. Racemi 3-6-pollicares. Flores *S. lachnostachydis* vel *S. procurentis*. Calyces piloso-hispidi. Corollæ cœruleæ. Connectiva supra ad insertionem dentata. Styli lobus superior inferiore duplo longior.

138. *S. CUSPIDATA* (Ruiz et Pav. Fl. Per. et Chil. 1. 23. t. 40. f. b.), suffruticosa, ramis pubescentibus, foliis petiolatis ovatis obtusiusculis crenatis basi cordatis rugosis subtus pallidis pubescentibus, floralibus ovatis acuminatis deciduis, racemis elongatis subsimplicibus, verticillastris sub-6-floris distantibus, calycibus tubuloso-campanulatis villosis, labio superiore breviter tricuspidato, dentibus labii inferioris ovatis cuspidatis, corollis calyce subtriplo longioribus, tubo breviter exserto ventricoso, labio superiore recto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo glabro vel breviter pubescente.

Hab. in Peruvia: in collibus circa Purrochuca *Mathews!* et Cheuchin *Ruiz et Pavon!* (*h. s. sp. comm. a cl. Lindley.*)

Suffrutex orgyalis. Folia pollicaria, subduplicato-crenata. Flores fere *S. scorodoniæ* vel *amarissimæ*. Corolla cœrulea.

139. *S. GILLIESII*, caule fruticoso, ramis cano-tomentosis, foliis petiolatis ovatis vel ovato-lanceolatis obtusiusculis crenato-dentatis basi truncato-cordatis rugosis supra glabriusculis subtus cano-tomentosis, floralibus ovatis acutis deciduis, racemis simplicibus, verticillastris remotis 2-6-floris, calycibus subsessilibus campanulatis cano-pubescentibus, labio superiore integro inferiorisque dentibus ovatis obtusis mucronatis recurvis, corollis calyce subduplo longioribus extus pubescentibus, labio superiore recto, inferiore duplo longiore lobis rotundatis, connectivis postice lineari-dilatatis deflexis longitudinaliter connatis, stylo brevissime pubescente.

Hab. in Chili: copiose in præruptis Andium prope Mendoza et Uspaleta et in monte Cerro de las Achiras dicto *Gillies!* (*v. s. sp. in herb. Hooker.*)

Frutex humilis, basi glabratus, ramis cano-tomentosis et glandulis coccineis conspersis. Folia 1-1½-pollicaria, subtus nervosa, albida, sæpe duplicato-crenata, acutiuscula. Racemi 2-6-pollicares, pauciflori. Calyces 2-3 lin. longi, sæpius colorati, labiis demum valde recurvo-patentibus. Corolla cœrulea (?), fere *S. urticifoliæ*, sed minor. Odor ex Gilliesio fragrantissimus.

140. *S. RACEMOSA* (Ruiz et Pav. Fl. Per. et Chil. 1. 25).

Hab. in versuris et ruderatis Huanuci Peruviæ *Ruiz et Pavon.*

"*S. foliis cordatis acutis sublanceolatis serratis, racemis terminalibus compositis, bracteis ovatis acuminatis.*

"*Planta suffruticosa, hirsuta. Caulis erectus, ramosus, inferne nudus, subteres. Rami brachiati, tetragoni. Folia longe petiolata, cordata, acuta, sublanceolata, serrata, sæpius colore purpureo livido maculata. Racemi terminales, plurimis spicis compositi. Flores verticillati, breviter pedunculati, ante explicationem obtekti bracteis ovatis acuminatis coloratis caducis. Corolla obscure cœrulea.*"—*Ruiz et Pav. l. c.*

141. *S. CARNEA* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 300. t. 151).

Hab. in Andibus Quinduensium regno Novo Granatensi *Humboldt et Bonpland*.

“*S. caule fruticoso erecto ramoso glabro, foliis subrotundo-ovatis acutis cordatis crenato-serratis hirtis, verticillis multifloris inferioribus parum remotis, calycibus hirtis.*

“*Caulis fruticosus, erectus, ramosus, ramique tetragoni, glabri, geniculi pilosi. Folia opposita, longe petiolata, subrotundo-ovata, acuta, cordata, crenato-serrata, utrinque hirta, 2-2½ poll. longa, 24-26 lin. lata. Petioli sesquipollicares, canaliculati, interne pilosi. Spicæ terminales, verticillatæ, tripollicares, verticillis multifloris approximatis, inferioribus parum remotis. Flores magnitudine floris Melissæ officinalis. Bracteæ oblongæ, acuminatæ, calyce breviores, caducæ. Calyx tubulosus, bilabiatus, striatus, hirtus, apice coloratus, labio superiore ovato-acuminato, inferiore bifido laciniis acuminatis. Corolla carnea, tubo superne parum ventricosus calycem superante, labio superiore concavo obtuso villosus pubescente, inferiore paulo longiore patent-reflexo trifido, lacinia intermedia emarginato-biloba, lobis subrotundis. Stamina generis, galeam parum superantia. Stigma exsertum, glabrum.*—*Kunth l. c.*

142. *S. PALÆFOLIA* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 303. t. 157).

Hab. in Andibus Novo Granatensium inter urbem Popayan et pagum Palace *Humboldt et Bonpland*.

“*S. caule suffruticoso erecto ramisque pilosis, foliis cordato-sagittatis apice rotundatis crenatis utrinque hirtis subtus canescentibus, spicis paniculatis, verticillis bifloris confertis, calycibus piloso-glandulosis.*

“*Caulis suffruticosus, erectus, ramosus, ramis tetragonis quadrisulcatis pilosis. Folia opposita, petiolata, profunde cordato-sagittata, apice rotundata, crenata, reticulato-venosa, membranacea, utrinque hirta, supra viridia, subtus canescentia, bipollicaria, inferne 20 lin. lata. Petioli sesquipollicares, pilosi. Spicæ paniculatæ, verticillatæ, verticillis bifloris confertis. Flores magnitudine floris Thymi Serpylli, pedicellis piloso-glandulosis. Calyx campanulatus, bilabiatus, striatus, piloso-glandulosus, lobo superiore obtusiusculo, inferiore bifido laciniis acuminatis. Corolla cœrulea, tubo calycem paullo superante, labio superiore oblongo obtuso galeato superne pubescente, labio inferiore duplo longiore trifido plano laciniis rotundatis, intermedia multo latiore emarginato-biloba lobis subrotundis. Stamina et stylus exserti.*—*Kunth l. c.*

143. *S. PROCURRENS* (Benth. in Herb. Mus. Reg. Berol. MSS.), caulibus basi repentibus radicanibus, ramis floriferis adscendentibus glabris villosisque, foliis petiolatis subrotundatis vel lato-ovatis basi cordatis crenatis glabris villosisque, floralibus lato-ovatis acutiusculis deciduis, racemis simplicibus longe pedunculatis, verticillastris 6-10-floris remotis, calycibus breviter pedicellatis campanulatis hispidis, labio superiore integro vel brevissime tridentato dentibusque labii inferioris acutis, corollis glabris calyce subduplo longioribus, tubo calycem æquante ventricosus, labio superiore recto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo subglabro.

Hab. in America meridionali: in pascuis humidis et sylvis provinciæ Rio Grande do Sul *A. de St. Hilaire!* in Brasilia meridionali *Sello!* in sylvis humidis ad Porana *Tweedie!* et ad fossas prope Buenos Ayres *Gillies!* (*h. s. sp. e herb. Mus. Reg. Berol. et v. s. sp. in herb. St. Hil., Hooker et Parker.*)

Caules elongati, ramosi, glabri vel pilis patulis sæpe glandulosis hispidi, viscosi,

juniores sæpius pilis adpressis pubescentes. Folia distantia, inferiora subrotunda, fere *Nepetæ Glechomæ*, superiora subovata, rugosula, venosa, glabra vel utrinque villosa. Racemi *S. ovalifoliæ*, at minus rigidi. Verticillastri infimi 2 poll. supremi vix semipollicem remoti. Calyx *S. lachnostachydis*, at minus hispidus. Corolla cœrulea, *S. ovalifoliæ*. Connectiva ad insertionem supra dentata. Stylus subglaber vel brevissime barbatus, lobo superiore elongato-subulato, inferiore abbreviato acuto.

144. *S. PROPINQUA*, caule basi repente (?), ramis adscendentibus elongatis villosis, foliis petiolatis ovato-obtusis crenatis basi cordatis utrinque villosis, floralibus deciduis, racemis simplicibus, verticillastris subsexfloris remotis, calycibus pedicello subæqualibus tubulosis striatis rufo-villosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce duplo longioribus, tubo calycem æquante ventricosus, labio superiore recto, inferiore duplo longiore lobis rotundatis emarginatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo glabro.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Affinis *S. procurrenti*, a qua differt caulibus firmioribus foliisque magis villosis, foliis brevius petiolatis et præcipue floribus majoribus et calycibus longius pedicellatis, tubulosis nec campanulatis, rufo-villosis nec piloso-hispidis.

d. *SESSILIFOLIÆ*. *Folia sessilia vel subsessilia basi rotundata vel truncata. (Species omnes Brasilianæ rigidæ.)*

145. *S. OVALIFOLIA* (St. Hil. MSS.), caule basi perenne repente, ramis adscendentibus glabris villosisve, foliis brevissime petiolatis ovalibus obtusis crenatis basi rotundatis glabris subcoriaceis, floralibus ovato-lanceolatis calyce brevioribus deciduis, racemis simplicibus, verticillastris 6-10-floris remotis, calycibus tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce duplo longioribus, tubo calycem æquante ventricosus, labio superiore recto, inferiore duplo longiore lobis rotundatis, medio latissimo emarginato, connectivis postice supra dentatis deflexis linearibus subdilatatis longitudinaliter connatis, stylo brevissime barbato.

S. repens. Benth. in Herb. Mus. Reg. Berol. MSS.

β *villosa*, foliis profundius serrato-crenatis basi latioribus.

Hab. in Brasilia: in pascuis Missionum Uruguayensium vulgaris et in campis herbidis prope Fazenda do Capitão Pedro provinciæ Minas Geraes *A. de St. Hilaire!* in Brasilia meridionali *Sello!* β prope Salto Grande fluminis Uruguay in provincia Rio Grande do Sul *A. de St. Hilaire*, in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil.*)

Caules basi nigrescentes, sublignosi, repentes, radicales. Rami adscendentes, parce foliosi, sub racemo subnudi, pedales sesquipedalesve. Folia pollicaria vel ultra, exacte ovalia. Racemus longe pedunculatus, verticillastris fere pollicem remotis.

146. *S. LACHNOSTACHYS*, caule basi radicante, ramis adscendentibus subsimplicibus villosis et patentim pilosis, foliis subsessilibus ovali-oblongis obtusis regulariter crenulatis basi rotundatis vel subcordatis rugosis subtus rufo-tomentosis, floralibus cordato-ovatis obtusiusculis calyce subbrevioribus subpersistentibus, racemis densis, verticillastris

subremotis sub-10-floris, calycibus campanulatis piloso-hispidis, labio superiore integro dentibusque labii inferioris acutiusculis, corollis calyce subduplo longioribus, tubo calycem subæquante ventricosus, labio superiore recto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis lanceolato-dilatatis longitudinaliter connatis, stylo bifariam barbato.

Hab. in Brasilia: in campis prope Registro de Curitiba et in pascuis prope Fazenda da Fortaleza provinciæ Sancti Pauli *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto, et v. s. sp. in herb. St. Hil.*)

Caules basi repentes, radicales, 1½-2-pedales, vix ramosi, rufo-tomentosi vel villosi, et pilis longis albidis patentibus plus minusve hispidi. Folia pollicaria, eleganter crenulata, rugosa, subcoriacea, supra tenuiter pubescentia, subtus subsericeo-tomentosa, venosa, floralia vix in verticillastro fructifero decidua. Racemus 3-5-pollicaris. Verticillastri infimi vix semipollicem remoti, supremi approximati, sæpius 10-flori. Calyces breves, campanulati, bracteæque et axis racemi pilis longis patulis dense hispidi. Corolla cœrulea, *S. ovalifoliæ*, at paullo minor. Connectiva ad insertionem supra piloso-appendiculata.

147.? *S. VISCIDA* (St. Hil. MSS.), suffruticosa viscosa, ramis glanduloso-hirtis, foliis subsessilibus vel inferioribus petiolatis ovato-lanceolatis acutiusculis serrato-crenatis basi cordatisve utrinque viridibus mollibus hispidis, racemis elongatis subsimplicibus, verticillastris subsexfloris subsecundis, calycibus tubuloso-campanulatis villosis viscosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce duplo longioribus, tubo subexserto ventricosus, labio superiore recto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo supra barbato.

Hab. in Brasilia: in sylvis Carrascos dictis, in Serra Negra ad limites provinciarum Minas Geraes et Rio de Janeiro *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Suffrutex 3-4-pedalis, basi sæpe decumbens, ramis herbaceis divaricatis. Racemi semipedales, numerosi. Verticillastri semipollicem vel demum pollicem remoti, plerumque secundi. Corolla cœrulea.

148. *S. CORDATA* (Benth. in Herb. Mus. Reg. Berol. MSS.), caule herbaceo erecto elato villosus, foliis breviter petiolatis ovato-oblongis acutis crenatis cordatis rugosis supra pubescentibus subtus molliter albo-tomentosis, floralibus ovatis acutis (?) deciduis, racemis simplicibus, verticillastris distantibus multifloris, calycibus tubuloso-campanulatis striatis pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis calyce triplo longioribus, tubo breviter exserto ventricosus, labio superiore recto pubescente, inferiore duplo longiore lobis rotundatis, medio latissimo emarginato, connectivis postice supra dentatis deflexis lanceolato-dilatatis obtusis longitudinaliter approximatis subconnatis, stylo glabro.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Caules firmi, 3-4-pedales, subsimplices, molliter villosi. Folia ampla, 3-4-pollicaria, molliter rugosa, subtus lana alba subsericea tomentoso-villosa. Verticillastri sæpe ultra 30-flori, fere pollicem remoti, racemo semipedali. Corolla cœrulea, ultra pollicaris. Styli lobus superior longissime subulatus, inferior quadruplo brevior, acutus.

149. *S. NERVOSA* (Benth. in Herb. Mus. Reg. Berol. MSS.), caule

herbaceo (?) erecto subsimplici rufo-tomentoso et pilis longis patentibus hispido, foliis sessilibus ovato-lanceolatis acutis crenato-serratis basi rotundatis subcordatis coriaceis supra rugosis glabris subtus nervosis tenuissime rufo-tomentosis, floralibus ovatis acuminatis deciduis, racemo elongato, verticillastris crebris 6-10-floris, calycibus ovato-tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris lato-ovatis obtusis vel breviter acuminatis, corollis calyce duplo longioribus extus tomentosis, tubo exserto superne ampliato, labio superiore recto, inferiore brevior lobis lateralibus rotundatis reflexis, connectivis edentulis postice linearibus deflexis connatis, stylo barbato.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Caules (vel rami?) subsimplices, 2-3-pedales, basi denudati. Folia in medio caulis numerosa, erectiuscula, rigida, 1-2-pollicaria, superiora breviora, latiora, acuminata. Racemus ultra pedalis, verticillastris vix semipollicem distantibus. Calyces pedicellati, 3 lin. longi. Corolla 6-8-linearis, cœrulescens? Stamina inclusa. Stylus corollam æquans, lobis subulatis, superiore longiore.

150. *S. RIGIDA* (Benth. in Herb. Mus. Reg. Berol. MSS.), caulibus herbaceis erectis villosis vel glabriusculis, foliis sessilibus lanceolatis linearibusve basi cordatis margine crenulatis glabris subcoriaceis rigidis, floralibus minutis linearibus deciduis, racemis simplicibus, verticillastris 6-10-floris remotis, calycibus tubulosis striatis villosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce subduplo longioribus, tubo calycem æquante ventricoso, labio superiore recto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo subtus breviter barbato.

Hab. in Brasilia: in locis auriferis camporum ad Villa Rica provinciæ Minas Geraes *Martius!* in pascuis prope pagum Piumhy, in parte meridionali ejusdem provinciæ et in campis prope Santa Borja inter Missiones Uruguayenses, et prope Rio Jacuhy provinciæ Rio Grande do Sul *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et comm. a cl. Otto, et v. s. sp. in herb. Martius et St. Hil.*)

Caules basi ramosi, ramis striatis subsimplicibus 1-1½-pedalibus, sæpius pilis subreflexis villosis, rarius glabriusculis. Folia 1-2-pollicaria, nunc lineari-lanceolata, acutiuscula, subcrenata et margine subrevoluta, supra rugosa, asperula, sublucida, subtus venosa, utrinque glabra, in ramis sterilibus interdum omnia lato-lanceolata, obtusa, venosissima. Racemi 4-6-pollicares. Verticillastri fere pollicem remoti, sæpius 4-6 rarius sub-10-flori. Calyces subsessiles, tubulosi, subviscoso-villosi. Corolla cœrulea, cum calyce vix semipollicaris. Connectiva supra dentata. Species quoad latitudinem foliorum valde variat, sed primo intuitu ab affini *S. nervosa* differt racemo paucifloro vix unquam semipedali et foliis angustioribus.

151. *S. ROSMARINOIDES* (St. Hil. MSS.), caule suffruticoso, ramis erectis virgatis tomentoso-villosis, foliis sessilibus linearibus vel lineari-lanceolatis acuminatis crenatis basi subcordatis rigidis supra glabriusculis subtus cano-tomentosis, floralibus ovatis acuminatis deciduis, racemis elongatis simplicibus, verticillastris subsexfloris distantibus, calycibus tubulosis viscoso-villosis, labio superiore integro dentibusque labii inferioris acutis, corollis calyce subtriplo longioribus, tubo breviter exserto, labio superiore erecto, inferiore subtriplo longiore lobis rotun-

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dati, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo bifariam pubescente.

Hab. in Brasilia: in campis Missionum Uruguayensium prope el Salto grande fluminis Uruguay *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*)

Planta inodora, bipedalis, basi lignosa. Folia in parte inferiore ramorum crebra, subbipollicaria, margine sæpius revoluta. Racemus fere pedalis. Corollæ cæruleæ, lineis albis notatæ.

§ 3. AXILLIFLORÆ. *Folia floralia caulinis conformia. Flores axillares. Corollæ tubus calyci æqualis vel vix ei dimidio longior.*—*Suffrutices vel fruticuli humiles, floribus cærulescentibus.*

152. *S. AXILLARIS* (Moç. et Sess. MSS.), suffruticosa humilis, foliis oblongo-linearibus acutis integerrimis basi angustatis scabro-hirtis, floralibus conformibus, verticillastris axillaribus 2-6-floris, calycibus subsessilibus tubulosis striatis pubescentibus, labio superiore tridentato, inferiore bifido, dentibus omnibus acutis subulato-acuminatis.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. *Lambert.*)

Specimen unicum in herbario Lambertiano servatum habitu *Thymo* vel *Satureiæ* simile est. Folia 3-4 lineas longa. Calyces foliis subæquales. Corollæ desunt.

153. *S. CUNEIFOLIA*, suffruticosa humilis, ramis decumbentibus villosis, foliis sessilibus ovato-cuneatis subdentatis basi angustatis utrinque viridibus, floralibus conformibus, verticillastris axillaribus paucifloris, calycibus tubulosis villosis, labio superiore breviter tricuspidato, inferiore bifido lobis acuminatis, corollis calyce plus duplo longioribus, tubo exserto æquali, labio superiore brevi erecto, inferiore triplo longiore lobis rotundatis, connectivis postice deflexis dilatatis subincrassatis longitudinaliter connatis, stylo glabro.

Hab. in Mexico: prope Chapultepec? *Karwinski!* (v. s. sp. in herb. *Mus. Reg. Monac.*)

Caules e basi crasso lignoso tortuoso plures, vix semipedales, flexuosi. Folia 3-4 lineas longa, dente uno alterove utrinque notata, infima et suprema subintegerrima. Flores magnitudine florum *Calaminthæ Nepetæ*.

154. *S. CALAMINTHÆFOLIA* (Vahl! Enum. 1. 233), caule fruticoso, ramis canescentibus, foliis petiolatis lato-ovatis obtusis crenatis basi cordatis utrinque tenuiter tomentosis, floralibus conformibus, verticillastris axillaribus remotis sub-6-floris, calycibus pedicellatis tubuloso-campanulatis glabriusculis, labio superiore integro inferiorisque dentibus ovatis acutis, corollis calyce subduplo longioribus extus pubescentibus, labio superiore erecto, inferioris duplo longiore lobis rotundatis, connectivis postice dilatatis deflexis longitudinaliter connatis, stylo superne barbato.

Hab. in ins. Sancti Dominici *Desfontaines!* (v. s. sp. in herb. *Vahl.*)

Fruticulus ramis tenuibus subpurpurascentibus. Folia vix unguicularia, utrinque mollia, margine utrinque crenis 2-4. Corolla cærulea. Genitalia breviter exserta.

155. *S. BALLOTÆFLORA*, fruticosa humilis, foliis petiolatis ovato-

rotundatis obtusis crenatis basi truncatis cordatisve supra glabriusculis subtus albo-tomentosis, floralibus conformibus vel supremis bracteæformibus, verticillastris paucis axillaribus 2-6-floris distantibus vel 2-3 superioribus in racemum brevem approximatis, calycibus pedicellatis tubuloso-campanulatis basi attenuatis, labio superiore integro dentibusque labii inferioris ovatis post anthesin dilatatis, corollis calyce subduplo longioribus, tubo incluso, labio superiore erecto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis dilatatis longitudinaliter connatis, stylo bifariam barbato.

Hab. in Mexico: prope Toliman *Karwinski!* (v. s. sp. in herb. Mus. Reg. Monac.)

Fruticulus ramosissimus. Folia vix semipollicaria, juniora subtus uti calyces tomento subfarinaceo alba.

§ 4. MEMBRANACEÆ. *Folia floralia bracteæformia dilatato-patentia membranacea. Corollæ tubus inclusus vel vix calyce longior. —Herbæ vel suffrutices, floribus cærulescentibus.*

156. *S. BUPLEVROIDES* (Presl MSS.), herbacea glabriuscula, foliis petiolatis ovatis acutis crenato-serratis basi angustatis cuneatisve utrinque viridibus, ramis in axillis abbreviatis, pedunculis longis fasciculatis, verticillastro in quoque pedunculo solitario terminali multifloro, foliis floralibus calyces excedentibus persistentibus lato-rotundatis basi subcordatis apice breviter acuminatis membranaceis venosis glabris, calycibus sessilibus membranaceis, labio superiore integro dentibusque labii inferioris ovatis acutiusculis, corollis calyce vix longioribus, connectivis postice deflexis longitudinaliter connatis.

Hab. in Mexico *Hænke!* (h. s. sp. comm. a cl. Presl.)

Species inflorescentia distinctissima. Pedunculi 3-5-pollicares. Folia floralia $3\frac{1}{2}$ lin. longa, 5 lin. lata. Flores minuti.

157. *S. MOCINNI*, caule herbaceo (?) procumbente, ramis adscendentibus breviter pubescentibus, foliis petiolatis ovatis acuminatis serrato-crenatis basi cuneatis vel truncatis glabriusculis, floralibus maximis orbicularibus acuminatis membranaceis venosis patentibus, racemis simplicibus, verticillastris remotis 6-10-floris, calycibus subsessilibus ovato-tubulosis canescentibus, labio superiore integro dentibusque labii inferioris acutis ciliatis, corollis calyce duplo longioribus, tubo incluso ventricoso, labio superiore recto integro, inferiore duplo longiore lobis rotundatis, medio lato emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. Lambert.)

Folia forma *S. polystachyæ*, sed utrinque viridia, glabra vel tenuissime pubescentia, floralia fere pollicem lata, ad venas leviter pilosa. Calyces et flores *S. leptostachyæ*. Corollæ cæruleæ. Hanc speciem miserunt Moçino et Sessé sub nomine *S. bracteæfloræ*; sed hoc nomen mutandum erat ob antiquiorem *S. bracteata* Russ. Affinis *S. buplevroidi*, sed foliis floralibus majoribus viridioribus et magis acuminatis, floribus majoribus et inflorescentia distinctissima.

§ 5. BRACTEATÆ. *Folia floralia bracteæformia persistentia herbacea lato-rotundata flores amplectentia. Corollæ tubus inclusus vel calyce vix dimidio longior. —Herbæ fruticesve, floribus cærulescentibus.*

158. *S. HIRSUTA* (Jacq. Hort. Schœnbr. 3. 1. t. 252), caule herbaceo adscendente ramoso pubescente, foliis petiolatis oblongis acutis remote serratis basi angustatis villosis, floralibus sessilibus lato-rotundatis acuminatis longe ciliatis persistentibus verticillastrum superantibus, racemis simplicibus, verticillastris subsexfloris demum distantibus, calycibus sessilibus tubuloso-campanulatis subinflatis striatis pubescentibus vel hispidis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calycem breviter superantibus, tubo incluso ventricosso, labio superiore erecto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo subtus barbato.

S. phlomoides. Cav. Ic. 4. 10. t. 320. (var. *latifolia male*) non Asso.

S. ciliata. Poir. ? Dict. 6. 588.

S. bracteata. Poir. Dict. 6. 622.

S. sideritidis. Vahl Enum. 1. 250.

S. cryptanthos. Schult. Obs. 12.

S. nepetifolia. Poir. ! Dict. Suppl. 5. 48.

Hab. in Mexico *G. J. Graham ! Moçino et Sessé ! &c. (h. s. sp.)*

Species sæpe in hortis botanicis culta, et foliis floralibus latissimis persistentibus flores includentibus primo intuitu recognoscenda. Corollæ labio superiore subfalcato et styli lobo inferiore complanato a *Calosphaceis* parum recedit, sed ex his characteribus sectio distincta vix constituenda sit. Calyces fructiferi ampli, tubuloso-campanulati. Corollæ cœruleæ, magnitudine *S. polystachyæ*. Connectiva ad insertionem supra dentata, postice villosa. Stylus apice subæqualiter bifidus, lobo superiore subulato, inferiore cuneato dilatato complanato. Achenia ovato-triquetra, lævia, variegata. Præter synonymia data, occurrit etiam in hortis sub nomine *S. præcoci* et *tetragonæ*.

159. *S. CLINOPODIODES* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 294. t. 145).

Hab. in Nova Hispania inter urbem Pazcuaro et Aguasarco *Humboldt et Bonpland*.

“*S. caule herbaceo erecto superne albo-lanato, foliis ovatis obtusiusculis basi rotundatis crenatis subtus pubescentibus, verticillis multifloris distantibus, bracteis magnis subrotundo-cordatis persistentibus, calycis albo-hirti labio inferiore brevioris reflexo.*

“Caulis herbaceus, erectus, tetragonus, pilosus, superne albo-lanatus. Folia opposita, petiolata, ovata, obtusiuscula, basi rotundata aut subcordato-crenata, utrinque pilis sparsis adpressis præsertim in venis obsita, 2-pollicaria et longiora. Flores verticillato-spicati, verticillis subglobosis multifloris distantibus bracteatis. Flores 10 lin. longi. Bracteæ subrotundo-ovatae, obtusæ, pilosæ, persistentes, calyces superantes. Calyx tubuloso-campanulatus, bilabiatus, albo-hirtus, labio superiore ovato-acuminato, inferiore dimidio brevioris bifido laciniis acuminatis reflexis. Corolla pallide cœrulea, tubo calyce longiore superne ampliato glabro, labio superiore galeato obtuso pubescente, inferiore triplo longiore trifido convexo saturate cœruleo laciniis lateralibus abbreviatis, intermedia dilatata biloba lobis rotundatis. Stamina labium superius subæquantia.”—*Kunth l. c.*

160. *S. SPECIOSA* (Presl MSS.), fruticosa, ramis superne albo-villosis, foliis petiolatis ovatis acutis serratis basi rotundatis truncatisve rugosis supra pubescentibus subtus albo-villosis tomentosive, floralibus bractæformibus lato-ovatis acuminatis calyce longioribus persistentibus herbaceis subcoloratis, racemo denso imbricato, verticillastris approximatis 6-10-floris, calycibus magnis tubulosis, labio superiore erecto dentibusque labii inferioris ovatis acutis, corollis calyce subduplo longioribus, tubo calycem æquante, genitalibus longe exsertis, connectivis postice linearibus deflexis longitudinaliter connatis.

Hab. in Peruvia: circa urbem Huanuco et in montanis ei vicinis *Hænke!* (v. s. sp. comm. a cl. Presl.)

Affinis *S. Parquerensi*, sed characteribus datis distinctissima. Verticillastri subsecundi. Calyces 7-8 lin. longi, basi hirti, apice uti folia floralia et corollæ? atropurpurei. Corollæ labium inferius et stylus in specimine mecum a cl. Preslio communicato desunt.

161. *S. PARQUERENSIS* (Moçino et Sessé MSS.), caule herbaceo erecto superne albo-lanato, foliis longe petiolatis amplis ovatis acutis basi rotundatis vel cuneatis in petiolum alatum decurrentibus utrinque pubescentibus, floralibus sessilibus rotundatis obtusis persistentibus flores amplexantibus, racemis simplicibus, verticillastri dense globosis multifloris approximatis distinctis, calycibus tubuloso-campanulatis albo-hirtis, labio superiore ovato acuminato integro, inferiore dimidio brevior laciniis acuminatis reflexis, corollis calyce subtriplo longioribus, tubo exserto superne ampliato, labio superiore recto, inferiore triplo longiore lobis rotundatis, medio maximo emarginato, connectivis postice linearibus deflexis longitudinaliter connexis, stylo pubescente.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. Lambert.)

Descriptionem et iconem *S. clinopodioidis* Kunthii omnino refert, præter folia, quæ ampliora et basi in petiolum lato-alatum decurrentia. Racemus densior. Corolla cœrulea, pollicaris.

162. *S. MACROSTACHYA* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 298), caule fruticoso erecto hirsuto, foliis petiolatis subrotundo-ovatis acutis basi profunde cordatis auriculis rotundatis imbricatis utrinque pubescenti-villosis, floralibus lato-ovatis villosis persistentibus calycem æquantibus, spicis densis crassis, verticillastri multifloris arcte approximatis, calycibus sessilibus tubulosis villosis, labio superiore ovato integro dentibusque labii inferioris acutis, corollis calycem vix excedentibus.

Hab. in Peruvia: prope Guayaquil *Tafalla!* in alta planitie Andium Quitensium juxta Quito, Llactacunga et Cuença *Humboldt et Bonpland.* (v. s. sp. in herb. Lambert.)

Frutex orgyalis et altior, ramis tetragonis hirsutis nodis violaceis. Folia 2-3-pollicaria, irregulariter crenata. Spica 6-8-pollicaris, diametro ultrapollicaris. Corollas vidi in speciminibus Tafallianis vix calycem excedentes, sed male desiccatas examinare nequivi; ex Bonplandio apud Kunth l. c. cœruleæ sunt, labio superiore fornicato leviter emarginato piloso, inferiore tripartito, lacinia intermedia emarginata.

§ 6. *ERIANTHÆ.* *Folia floralia bractæformia decidua. Calyces dense tomentoso-lanati. Corollæ tubus calyce vix dimidio longior.—Herbæ fruticesve, floribus albidis flavescentibus vel rarius rubescentibus.*

163. *S. LEUCOCEPHALA* (Humb. et Kunth Nov. Gen. et Sp. Amer. 2. 302. t. 156).

Hab. in Peruvia: prope pagum Alausi Quitensium *Humboldt et Bonpland.*

“*S.* caule fruticoso erecto ramisque cano-tomentosis, foliis ovatis obtusiusculis cordatis crenato-serratis subtus incano-tomentosis, spicis ovatis, verticillis multifloris arcte confertis, calycibus candidis lanato-tomentosis.

“Frutex erectus, tripedalis, ramosus, inodorus. Rami tetragoni, cano-tomentosi.

Folia opposita, petiolata, ovata, apice angustata et obtusiuscula, cordata, crenato-serrata, crassiuscula, reticulato-venosa, supra viridia et pubescentia, subtus tomento denso albo obducta, bipollicaria. Petioli 4-5 lin. longi, cano-tomentosi. Spicæ terminales, ovatæ, verticillatæ, 2-3-pollicares, verticillis multifloris confertissimis. Bracteæ ovatæ, acutæ, supra virides et pubescentes, subtus albo-tomentosæ, calyces breviores. Calyx tubulosus, bilabiatus, albo-tomentosus, sublanatus, labio superiore ovato acuto, inferiore bifido laciniis acutis. Corolla violacea, tubo calycem æquante, labio superiore lineari-oblongo emarginato externe pubescente, labio inferiore paulo longiore superne trifido patulo plano, lacinia intermedia majore subrotunda integra. Stamina generis vix exserta. Stylus exsertus, pubescens. Stigma bipartitum, laciniis acutis inæqualibus. Species valde elegans."—*Kunth l. c.*

164. *S. BREVIFLORA* (Moç. et Sess. MSS.), caule fruticoso, ramis tetragonis cano-tomentosis, foliis breviter petiolatis ovatis acutis crenulatis basi rotundatis vel subcordatis supra molliter cano-pubescentibus subtus albo-tomentosis, floralibus ovatis acuminatis calyces æquantibus subtus dense albo-tomentosis, racemis spicæformibus densis subramosis, verticillastris sub-6-floris approximatis secundis, calycibus subsessilibus tubuloso-campanulatis albo-tomentosis, labio superiore integro inferiorisque dentibus abbreviatis obtusis, corollis calyce subduplo longioribus extus tomentosis, labiis subæqualibus, genitalibus subexsertis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Nova Hispania *Moçino et Sessé!* in Mexico *Hænke!* (*h. s. sp. comm. a cl. Presl, et v. s. sp. in herb. Lambert.*)

Folia fere *Lantanæ*, vix pollicaria. Racemi 1-2-pollicares, nunc solitarii, nunc plures, paniculati. Calyces imbricati, 4 lin. longi, basi attenuati, incurvi. Corollæ labium superius subincurvum, breviter emarginatum, inferius vix longius lobis rotundatis, medio maximo bifido. Valde affinis videtur *S. leucocephalæ*, sed omnibus partibus fere dimidio minor, folia minus cordata, et tomentum foliorum et calycum tenuius.

165. *S. FARINACEA*, caule herbaceo erecto glabriusculo, foliis petiolatis ovato-oblongis lanceolatisve obtusiusculis irregulariter serrato-crenatis basi longe angustatis glabriusculis utrinque viridibus vel subtus canescentibus, floralibus parvis deciduis, racemo elongato simplici, verticillastris multifloris subsecundis remotis vel supremis approximatis, calycibus subsessilibus tubulosis dense albo-tomentosis, labio superiore integro dentibusque labii inferioris brevissimis obtusis, corollis calyce duplo longioribus extus glabriusculis, tubo vix exserto ventricosus, labio superiore erecto, inferiore duplo longiore lobis rotundatis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo barbato.

Hab. in Mexico: in provincia Texas inter Rio Guadalupe et Rio Colorado *Herb. Hooker!* (*v. s. sp. in herb. Hooker.*)

Folia fere *S. uliginosæ* vel *S. serratæ*, sed ab utraque calycibus dense tomentoso-lanatis distinctissima.

166. *S. REVOLUTA* (Ruiz et Pav.! Fl. Per. et Chil. 1. 28. t. 41. f. b.), caule fruticoso erecto albo-tomentoso, foliis breviter petiolatis lineari-lanceolatis obtusis crenatis margine revolutis rugosis utrinque albo-tomentosis, floralibus inferioribus conformibus supremis ovatis acuminatis deciduis, racemis simplicibus, verticillastris subsexfloris remotis secundis, calycibus tubulosis dense floccoso-tomentosis, labio superiore integro dentibusque labii inferioris acutis, corollis calyce duplo longioribus tomentosis, tubo exserto ventricosus, labiis subæquali-

bus, superiore erecto, inferioris lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo hirsuto.

Hab. in Peruvia: in præruptis provinciæ Cantæ *Ruiz et Pavon!* (v. s. sp. in herb. *Lambert.*)

Frutex 2-3-pedalis, erectus, ramosissimus, ex omni parte albo-tomentosus. Folia sesquipollicaria, petiolo brevi. Racemi semipedales. Corolla albo-violacea.

167. *S. LEUCANTHA* (Cav. Ic. 1. 16. t. 24), caule fruticoso, ramis subteretibus albo-lanatis, foliis breviter petiolatis lanceolato-linearibus acutis minute crenatis basi rotundatis supra rugosis pubescentibus subtus albo-lanatis, floralibus ovatis acuminatis deciduis, racemo elongato, verticillastris multifloris infimis remotis, calycibus subsessilibus ovatis dense lanatis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce duplo longioribus extus albo-lanatis, tubo exserto ampliato subventricosus, labiis abbreviatis, superiore erecto integro, inferioris lobis lateralibus rotundatis, medio integro erecto concavo, connectivo postice lineari-dilatatis deflexis connatis, stylo barbato.

Hab. in Mexico *G. J. Graham!* (h. s. sp. comm. a cl. *Graham et v. s. sp. in herb. plur.*)

Rami elongati, lana demum caduca. Folia mollia, 2-6-pollicaria. Racemi sæpius purpurascens, densissime lanati, 6-10-pollicares. Verticillastri inferiores pollicem remoti. Flores 10-12 lineas longi. Corollæ albidæ, sub fauce parum contractæ.

168. *S. VELUTINA* (Benth. in Herb. Mus. Reg. Berol. MSS.), caule fruticoso? ramis dense foliosis velutino-lanatis, foliis subsessilibus oblongo-lanceolatis obtusis crenatis basi angustatis rugosis subtus velutino-lanatis, floralibus lanceolatis deciduis, racemo laxiusculo, verticillastris sub-6-floris, calycibus tubulosis striatis floccoso-tomentosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce dimidio longioribus extus albo-lanatis, tubo ampliato, labiis subæqualibus, superiore recto, inferioris lobis lateralibus ovatis, medio integro, connectivis edentulis postice deflexis connatis, stylo glabro.

Hab. in Brasilia meridionali *Sello!* (v. s. sp. in herb. Mus. Reg. Berol.)

Affinis *S. confertifloræ*, sed characteribus datis distinctissima. Racemi 4-6-pollicares. Flores albi. Pedicelli 2-3 lineas, calyces 4-5 longi.

169. *S. ERIOCALYX* (Bertero in Rœm. et Schult. Syst. Addit. 2. ad Mant. 1. 246), caule fruticoso, ramis divaricatis cano-pubescentibus, foliis oblongo-lanceolatis acuminatis serratis basi cuneatis supra pubescentibus subtus dense cano-tomentosis, floralibus ovatis acuminatis deciduis, racemis abbreviatis simplicibus, verticillastris 6-10-floris approximatis, calycibus campanulatis dense lanatis, labio superiore integro dentibusque labii inferioris ovatis obtusis, corollis calycem breviter superantibus extus lanatis, tubo incluso, labiis abbreviatis, superiore recto inferiorisque lobo medio integro, connectivis postice breviter productis lineari-dilatatis deflexis longitudinaliter connatis, stylo barbato.

Hab. in Jamaica *Bertero! Mac Fadgen!* (h. s. sp. comm. a cl. *Hooker et v. s. sp. in herb. plur.*)

Rami divaricati vel procumbentes, nodosi, acute tetragoni, juniores cano-tomentosi, ætate glabrati. Folia ad summitates approximata, 3-4-pollicaria, crassiuscula, molliter rugosa, supra viridia, subtus cana, venosa. Racemi 2-3-pollicares. Verticillastri distincti, at approximati. Calyces subsessiles, 3-lineares, ovato-campanulati, lana sæpius rubescente. Corollæ *S. confertifloræ*, a qua differt foliorum forma, racemis abbreviatis, et calycibus majoribus.

170. *S. CONFERTIFLORA* (Pohl! Pl. Bras. Ic. 2. 134. t. 190), caule fruticoso? ramis rufo-tomentosis, foliis petiolatis ovato-oblongis acutiusculis crenatis, basi cuneatis in petiolum subdecurrentibus supra rugosis adpresse pubescentibus subtus dense rufo-tomentosis, floralibus ovatis longe acuminatis reflexis vel deciduis, racemis elongatis, verticillastris crebris multifloris, calycibus ovato-tubulosis tomentoso-lanatis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce dimidio longioribus extus aureo-lanatis, tubo exserto ventricoso, labiis abbreviatis, superiore recto inferiorisque lobo medio integro, connectivis postice breviter productis dilatatis deflexis longitudinaliter connatis, stylo glabro.

Hab. in Brasilia *Sello!* prope Rio Janeiro *Macrae!* ad Serra d'Estrella et Padre Correa *Pohl!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. Endlicher, Mus. Soc. Hort. Lond. et Mus. Cæs. Reg. Bras. Vind.*)

Rami firmi, obtuse tetragoni, sulcati. Folia 3-4 poll. longa, sesquipollicem lata. Racemi ultrapedales, bracteis longe acuminatis apice comosi. Verticillastri numerosi, 10-20-flori, semipollicem vel inferiores fere pollicem distantes. Calyces rubescentes, 4 lin. longi. Corollæ parvæ, intus rubellæ, extus flavidæ vel rubellæ, lana aurea vestitæ.

171. *S. LASIANTHA*, fruticosa, ramis dense lanatis, foliis subsessilibus ovali-oblongis obtusis crenatis basi rotundatis vel cordatis supra rugosissimis hispidis subtus mollissime albo-lanatis, floralibus ovatis acuminatis calyce brevioribus deciduis, racemis elongatis simplicibus, verticillastris distantibus multifloris, calycibus tubulosis dense lanatis, labio superiore integro inferiorisque dentibus ovatis acutis, corollis calyce dimidio longioribus, tubo vix exserto ventricoso extus pubescente, labiis subæqualibus, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Mexico *Moçino et Sessé!* (*v. s. sp. in herb. Lambert.*)

Folia et habitus fere *S. scorodoniæ*, at folia majora, rugosiora, et subtus mollissime albo-tomentosa. Racemi 6-8-pollicares, sæpius rubescentes vel flavescentes. Inflorescentia et floribus *S. eriocalyci* affinis, sed foliis distinctissima.

§ 7. *LONGIFLORÆ*. Corollæ tubus calyce 2-5-plo longior. Labium inferius superiore plerumque brevius vel rarius longius.—Herbæ, suffrutices fruticesve, corollis albidis flavescentibus aurantiacis cærulescentibus coccineis vel purpureis.

a. *ALBIDÆ*. Corollæ albidæ.

172. *S. TOMENTELLA* (Pohl! Pl. Bras. Ic. 2. 138. t. 194), caule herbaceo? erecto rufo-tomentoso, foliis sessilibus ovato-oblongis obtusis crenatis basi angustatis rugosis supra hispidulis subtus tomentoso-pubescentibus, floralibus deciduis, racemo elongato, verticillastris 6-10-floris remotis, calycibus tubulosis striatis tomentoso-pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis

calyce duplo longioribus extus albo-lanatis, tubo exserto superne ampliato, labiis abbreviatis, superiore recto, inferiore brevior lobis lateralibus rotundatis reflexis, medio erecto integro concavo, connectivis postice subdilatis deflexis connatis, stylo breviter barbato.

Hab. in Brasilia: in campis herbidis provinciæ Goyaz circa Metropolim *Pohl!* et provinciæ Minas Geraes frequens *Pohl! Martius! A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil., Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.*)

Caules (vel rami?) subsimplices, 2-3-pedales. Folia pauca, remota, 2-3-pollicaria. Verticillastri inferiores 2-3 pollices distantes. Calyces subsessiles, 6-8-lineares, fructiferi subcampanulati. Corollæ 15 lineas longæ, albæ, lana alba densissima vestitæ. Connectiva postice breviter. Filamenta supra insertionem longe lineari-producta. Stylus corollam æquans, lobis subulatis subæqualibus.

Ab incolis *Selva* dicitur. Species inter *Erianthas* et *Tubifloras* quasi media.

b. AURANTIACÆ. Corollæ aurantiacæ vel lutescentes.

173. *S. LUTEA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 297. t. 148).

Hab. in Peruvia: in locis subfrigidis inter urbem Loxa et montem Saraguru regno Quitensi *Humboldt et Bonpland.*

"*S. caule fruticoso erecto ramisque pilosis, foliis oblongis subacutis cordatis crenatis supra glabris subtus albo-tomentosis, verticillis multifloris inferioribus distantibus, bracteis ovatis acutis calyce brevioribus caducis, calycis glanduloso-pilosi labio superiore tridentato.*

"*Caulis fruticosus, erectus, ramosus, ramis tetragonis pilosis strictis. Folia opposita, petiolata, oblonga, acuta aut obtusa, cordata, crenata, supra rugoso-venosa, subtus densissime albo-tomentosa, 1-1½-pollicaria. Petioli semipollicares, albo-villosi. Spicæ semipedales, terminales, verticillatæ, verticillis multifloris inferioribus distantibus. Flores 9-10 lin. longi. Bracteæ ovatæ, acutæ, hirtæ, calyce breviores, caducæ. Calyx subcampanulatus, bilabiatus, striatus, piloso-glutinosus, labio superiore tridentato dentibus acuminato-mucronatis, labio inferiore bifido laciniis acuminato-subulatis. Corolla lutea, dorso glanduloso-pilosiuscula, tubo ventricoso calycem triplo superante, labio superiore oblongo galeato concavo obtuso, labio inferiore vix brevior patulo trilobo lobis rotundatis, intermedio latiore. Stamina inclusa. Stylus exsertus, barbatus.*"—*Kunth l. c.*

174? *S. PUNCTATA* (Ruiz et Pav. Fl. Per. et Chil. 1. 27. t. 39. f. b), caule suffruticoso erecto glanduloso-pubescente, foliis petiolatis ovatis acutis serratis basi rotundatis integerrimis coriaceis venosis supra viscosis subtus concoloribus pubescentibus glabrisve, floralibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris 1-10-floris remotis, calycibus campanulatis hirsutis, labio superiore integro obtuso vel brevissime tridentato, inferioris dentibus ovatis acutis, corollis calyce triplo longioribus pubescentibus, tubo exserto subventricosus, labiis subæqualibus, superiore erecto, inferioris lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

Hab. in Peruvia: in collibus altis Huanuco *Ruiz et Pavon!* (*v. s. sp. in herb. Lambert.*)

Planta foetida vulpino odore, ferruginea (R. et P.). Caulis 2-3-pedalis, obsolete tetragonus, ramis brachiatis purpurascens. Folia vix pollicaria, longius petiolata quam in icone citata, ovalia, glanduloso-viscosa. Racemi semipedales. Corolla alba, sæpe lutescens et violaceo-alba, magnitudine *S. lamiifoliæ*.

"Vernacule *Anasccachu*, id est herba vulpina" *R. et P.* Species forsan inter *Brachyanthas* enumeranda.

July 1833.

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175. *S. PAVONII*, caule fruticoso bifariam pubescente, ramis superne glanduloso-villosis, foliis petiolatis ovatis obtusis integerrimis basi cuneatis glabris, floralibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris multifloris distantibus, calycibus campanulatis glanduloso-villosis, labio superiore integro dentibusque labii inferioris lato-ovatis acutis, corollis extus pubescentibus calyce subquadraplo longioribus, tubo longe exserto, medio inflato, labiis abbreviatis erectis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo supra barbato.

Hab. in Peruvia *Pavon!* (v. s. sp. in herb. Lambert.)

Affinis *S. punctatæ*, sed diversa foliis integerrimis obtusis, calycibus latioribus, corollis longioribus, tubo ampliori. Corollæ flavescentes videntur, labii inferioris lobi erecti brevissimi, medio integro.

176. *S. INTEGRIFOLIA* (Ruiz et Pav. ! Fl. Per. et Chil. 1. 26. t. 36. f. b.), caule fruticoso glabro, foliis petiolatis ovatis integerrimis basi rotundatis glabris viscosis subcarnosis, floralibus lanceolatis acutis deciduis, racemis abbreviatis simplicibus, verticillastris subsexfloris distantibus, calycibus tubulosis glabris, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce triplo longioribus pubescentibus, tubo exserto subæquali, labio superiore erecto, inferioris lobis rotundatis subrectis, medio integerrimo, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Peruvia : ad Caxatambo provinciam juxta aquas thermales Cheuchin et inter rupes *Ruiz et Pavon!* (v. s. sp. in herb. Lambert.)

Caulis bipedalis, ramosissimus, ramis tetragonis viscoso-resinosis subpurpureis. Folia vix semipollicaria, obtusa vel acuta. Flores ultra pollicares. Calyx viridis, cylindricus. Corolla croceo-lutea. Genitalia exserta.

Vernacule *Socconcha* sec. Pavon. Sic etiam plures aliæ *Salviæ* species nominatæ sunt a Pavonio in herbario Lambertiano.

177. *S. OPPOSITIFLORA* (Ruiz et Pav. Fl. Per. et Chil. 1. 26. t. 43. f. a), caule suffruticoso basi procumbente, ramis erectis tenuiter pubescentibus, foliis petiolatis ovatis obtusis basi rotundatis vel cordatis rugosis pubescentibus, floralibus deciduis, racemis simplicibus, verticillastris bifloris secundis, calycibus tubulosis striatis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce quadraplo longioribus extus pubescentibus, tubo longe exserto, labiis subæqualibus, inferioris lobis suberectis integris rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro (?).

S. grata. Vahl Enum. 1. 244.

Hab. in Peruvia : in locis altis aridis et ventosis Tarmæ oppidi *Ruiz et Pavon!* (v. s. sp. in herb. Lambert.)

Suffrutex, gratissimo odore præditus (R. et P.), altitudine 1-2-pedalis. Folia vix sesquipollicaria, nunc vix pollicaria, subtus venosa, leviter crenulata. Racemus 1-pollicaris. Corolla *S. tubifloræ* paullo minor, coccinea.

Vernacule *Chenichelcoma* R. et P.

178. *S. GLUMACEA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 298).

Hab. in temperatis Novæ Hispaniæ *Humboldt et Bonpland.*

“ *S.* caule suffruticoso erecto ramisque pubescentibus, foliis ovatis obtusis cor-

dati subintegerrimis coriaceis glabriusculis, verticillis bifloris distantibus, bracteis oblongis acutis ciliatis glumaceis calycem subæquantibus, calycibus glabriusculis.

“Caulis suffruticosus, erectus, ramis obtuse tetragonis, tenuissime pubescentibus. Folia opposita, petiolata, semipollicaria et longiora, ovata, obtusa, cordata, subintegerrima, coriacea, utrinque glabriuscula, margine pilis raris obsita. Petioli 3-4 lin. longi, tenuissime pubescentes. Spicæ elongatæ, verticillatæ, verticillis bifloris distantibus. Bracteæ oppositæ, oblongæ, acutæ, striatæ, glaberrimæ, ciliatæ, glumacæ, calycem subæquantes. Calyx tubulosus, bilabiatus, striatus, glabriusculus, labiis piloso-ciliatis, superiore acuminato, inferiore bifido laciniis acuminatis. Corolla mihi incognita.”—*Kunth l. c.*

179. *S. STRICTIFLORA* (Hook. Bot. Misc. 2. 234), caule fruticoso, ramis breviter tomentoso-pubescentibus, foliis petiolatis ovatis acutis crenato-serratis basi cordatis crassiusculis subcarnosis glabriusculis, floralibus ovatis acutis membranaceis deciduis, racemis elongatis, verticillastris bifloris secundis, calycibus tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce ultra duplo longioribus, tubo elongato incurvo extus tomentoso, labiis subæqualibus vix patentibus, superiore recto integro, inferioris lobis lateralibus brevissimis, genitalibus exsertis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo glabro.

Hab. in Peruvia: inter Yago et Obrajillo vallis Canta *Cruikshanks!* (*h. s. sp. comm. a cl. Cruikshanks et a cl. Presl e collectione Hænkeana.*)

Frutex orgyalis. Folia 1½-2-pollicaria, pallide viridia, carnosula, juniora tenuiter pubescentia. Racemi ultrapedales. Folia floralia et calyces striati, pubescentes, glumacei, ante anthesin imbricati. Verticillastri post anthesin pollicem distantes. Corollæ aureo-coccineæ, sesquipollicares. A *S. tubifloræ* var. β differt foliis glabriusculis carnosis minus cordatis, caule glabriore; a *S. glumacea* vix diversa videtur, nisi habitatione et foliis minus cordatis.

180. *S. TUBIFLORA* (Sm.! Ic. 26. t. 26), caule suffruticoso erecto villosus, foliis petiolatis ovatis obtusis crenato-serratis basi cordatis supra pubescentibus vel villosis subtus albo-lanatis vel inferioribus glabratis, floralibus ovato-lanceolatis acutis membranaceis deciduis, racemis simplicibus, verticillastris bifloris secundis, calycibus tubulosis striatis lanatis vel villosis, labio superiore integro dentibusque labii inferioris lanceolatis acutis, corollis calyce triplo longioribus, tubo elongato incurvo extus tomentoso, labiis subæqualibus subrectis, superiore integro, inferioris lobis parvis rotundatis erectis, medio concavo, genitalibus subexsertis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

S. biflora. Ruiz et Pav.! *Fl. Per. et Chil.* 1. 24. t. 38. f. a.

β *glabrata*, foliis inferioribus concoloribus subglabris.

S. excisa. Ruiz et Pav.! *Fl. Per. et Chil.* 1. 25. t. 36. f. a.

Hab. in Peruvia: in montibus arenosis Huanuco in provincia Chancay Ruiz et Pavon! Dombey! in arenosis Peruviae meridionalis Cuming! β in montibus arenosis vulgo Lomas in Camanæ provincia ad oppidum Atiquipa. (*h. s. sp. a Cuming lectam et v. s. sp. in herb. Lambert. Smith, et Banks. et β in herb. Lambert.*)

Caulis bipedalis, erectus, basi ramosus, obtuse tetragonus, striatus, in var. α densissime et mollissime, in var. β breviter villosus. Folia mollia, subtus albo-lanata. Racemi in utraque varietate recti vel apice subnutantes. Folia floralia

et calyces glumacei, sæpius tomento candido subsericeo vestiti. Corolla aureo-coccinea, sesquipollicaris. Var. β non differt nisi foliis inferioribus glabratis et caule racemoque minus villosis. Folia juniora subtus constanter tomentosa.

b. COCCINEÆ. *Corollæ coccineæ vel purpureæ.*

181. *S. LEONUROIDES* (Glox. Obs. Bot. 15. t. 2), caule fruticoso, ramis glabriusculis, foliis petiolatis ovatis vel rhomboideis obtusis subcrenatis basi truncatis subcordatis supra glabriusculis subtus venosis canescentibus, floralibus conformibus, verticillastris subsexfloris, floribus foliis subæqualibus, pedicellis petiolo brevioribus, calycibus tubuloso-campanulatis glabris, labio superiore integro lobisque labii inferioris lato-ovatis acutis, corolla calyce subduplo longiore, tubo ventricoso, labiis subæqualibus, superiore erecto integro extus pubescente, inferioris lobis lateralibus oblongis reflexis, medio rotundato deflexo, staminibus inclusis, connectivis edentulis postice deflexis obtusis longitudinaliter connatis, stylo exserto barbato, lobis subulatis.

S. leonuroides. Lam. Ill. t. 20. f. 3.

S. formosa. L'hér. Stirp. 1. 41. t. 21. Mirb. in Ann. Mus. Par. 15. t. 15. f. 9. Trattin. tabul. t. 398. Curt. Bot. Mag. 11. t. 376.

Jungia formosa. Mæneh.

S. nodosa. Ruiz et Pav. ! Fl. Per. et Chil. 1. 25. t. 41. f. a.

S. pyrifolia. Dombey ex Cav.

Hab. in locis temperatis regni Quitensis: prope pagum Chillo et Ichubamba Humboldt et Bonpland, in arenosis argillaceis petrosisque Huanuco Ruiz et Pavon ! (h. s. c. et v. s. sp. in herb. Lambert.)

Frutex orgyalis, ramis sulcatis nodosis glabris vel tenuiter cano-tomentosis. Folia in apicibus ramorum sæpe approximata, inferiora sæpe subrotunda, suprema ovato-oblonga, rarius integerrima, sæpius sinuata vel crenulata. Verticillastri in axillis foliorum caulinorum nec racemosi. Calyces ampli, virides, glaberrimi. Corolla coccinea, styli lobus superior attenuato-subulatus, inferiore paulo longior.

182. *S. PLUMOSA* (Ruiz et Pav. Fl. Per. et Chil. 1. 26. t. 37. f. a).

Hab. in Peruvia: in Tarmæ provinciæ præruptis ad Huassa-huassi vicum Ruiz et Pavon.

“*S. foliis subcordatis acutis crenatis, pedunculis 4-5 axillaribus senifloris, stylo plumoso.*

“*Planta frutescens, subtomentosa, tomento ferrugineo. Caulis orgyalis, erectus, ramosus. Rami teneri, lanuginosi, tetragoni, brachiati. Folia petiolata, subcordata, acuta, crenata, venosissima, rugosa, subtus leviter lanuginosa. Flores axillares, verticillati, pedunculati. Pedunculi 3-4, frequentius 5, teretes, uniflori, petiolis longiores, bracteolis totidem subulatis aliquando ovatis suffulti. Calyx bifidus, nervosus, tubulosus, intus scaber. Corolla purpurea, extus hirsuta, calyce duplo longior, labiis æqualibus, superiore emarginato, inferiore trifido. Stylus hirsuto-purpurascens.*”—*R. et P. l. c.*

Ex icone et descriptione non a *S. leonuroides* differt nisi foliis subtus leviter lanuginosis et corollæ tubo subtus non ventricoso.

183. *S. BALAUSTINA* (Pohl ! Pl. Bras. Ic. 2. 133. t. 189), suffruticosa erecta pilosa, foliis petiolatis oblongis acutis serratis basi angustatis utrinque viridibus pilosis, floralibus conformibus, verticillastris axillaribus remotis sexfloris, calycibus tubulosis pilosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce triplo longioribus, tubo longe exserto, labio superiore recto, inferiore patente brevioribus lobis ovatis, connectivis postice deflexis lineari-dilatatis longitudinaliter connatis, stylo barbato.

Hab. in Brasilia: in dumetis et inter frutices ad margines viarum prope Engenho da Varge provinciæ Rio de Janeiro *Pohl!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.*)

Caules tripedales, ramis rubescenti-brunneis. Folia 2-2½-pollicaria, floralia vix minora. Bracteæ lanceolatæ, vix pedicello longiores. Calyces breviter pedicellati, superne ampliati. Corolla 2 poll. longa, coccinea, labii inferioris lobo medio integro lateralibus parum latiore. Stamina corolla breviora. Stylus paullo longior.

184. *S. ASPERIFOLIA* (Benth. in Herb. Mus. Reg. Berol. MSS.), caule suffruticoso erecto brevissime pubescente, foliis sessilibus oblongis crenatis basi angustatis supra tuberculosi asperrimis subtus glabriusculis, floralibus ovatis acuminatis membranaceis ciliatis deciduis, racemis elongatis, verticillastris sub-6-floris subsecundis infimis remotis, calycibus tubulosis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce 3-plo longioribus pubescentibus, tubo elongato superne ampliato, labio superiore erecto, inferiore dimidio brevior lobis lateralibus oblongis deflexis, medio integro, connectivis edentulis postice deflexis linearibus acutis longitudinaliter connatis, stylo exserto plumoso.

Hab. in Brasilia: in Serra das Caldes in parte meridionali provinciæ Goyaz et in pascuis siccis prope Padre Anastasio et ad pagum Congonhas da Serra provinciæ Minas Geraes *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil.*)

Caules elongati, superne subnudi. Folia 3-4-pollicaria, coriacea, subplicata, supra tuberculis sparsis asperrima. Racemi ½-pedales pedalesve. Verticillastri inferiores 2-3 poll. distantes. Calyces 4-6-lineares. Corollæ sesquipollicares, coccineæ, tubo superne sed infra faucem ampliato, fauce vix contracta. A *S. scabrida* differt foliis latioribus, floribus numerosioribus, et corollæ tubo magis inflato.

185. *S. SCABRIDA* (*Pohl! Pl. Bras. Ic. 2. 140. t. 195*), caule suffruticoso erecto brevissime pubescente, foliis subsessilibus oblongo-lanceolatis obtusis crenatis basi angustato-rotundatis supra tuberculis asperrimis subtus glabriusculis, floralibus ovatis acuminatis deciduis, racemis simplicibus elongatis, verticillastris paucifloris, calycibus tubulosis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce triplo longioribus pubescentibus, tubo elongato vix ampliato, labio superiore erecto, inferiore brevior lobis oblongis, medio integro, connectivis postice deflexis linearibus longitudinaliter connatis, stylo plumoso.

Hab. in Brasilia: in pascuis graminosis ad Santa Lucia provinciæ Goyaz et circa Barbacena et Registo Velho provinciæ Minas Geraes *Pohl!* in campis ad Contendas deserti ejusdem provinciæ *Martius!* (*v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.*)

A *S. asperifolia* differt foliis angustioribus, verticillastris plerumque 2-4-floris, et corollæ tubo minus ampliato. Color corollæ pulchre ruber.

186. *S. PERSICIFOLIA* (*St. Hil. MSS.*), fruticosa, ramis superne villosis, foliis subsessilibus oblongo-lanceolatis acuminatis subserratis basi angustatis supra scabriusculis subtus concoloribus subglabris, floralibus bracteæformibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris subsexfloris distantibus, calycibus tubuloso-campanulatis extus lana longa purpurea vestitis, labio superiore integro

dentibusque brevissimis, labii inferioris ovatis acutiusculis, corollis calyce plus duplo longioribus villosis, tubo superne ampliato, labio superiore erecto, inferiore dimidio brevior, lobo medio integro, connectivis postice linearibus deflexis longitudinaliter connatis, stylo plumoso.

Hab. in Brasilia: in sylvis primitivis prope pagum Rio Vermelho in parte orientali provinciæ Minas Geraes *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*)

Frutex pulcherrima, 5-7-pedalis. Folia 2-3-pollicaria, subtus ad venas leviter rufo-villosa, cæterum glabra. Axis racemi et calyces pilis scariosis purpureis articulatis dense vestiti. Calyces fere pollicem longi, fructiferi coriacei, apice parum ampliati. Corolla coccinea, plusquam 2 poll. longa. Stylus breviter exsertus, lobo superiore longiore.

187. *S. MARIANA* (Mart. MSS.), fruticosa, ramis tomentoso-villosis, foliis breviter petiolatis oblongo-lanceolatis utrinque longe angustatis supra breviusculis subtus molliter pubescentibus pallidis, floralibus bractæformibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris subsexfloris distantibus, calycibus tubuloso-campanulatis extus lana adpressa subsericea rufo-alba dense vestitis, labio superiore integro dentibusque brevissimis labii inferioris ovatis acutis, corollis calyce duplo longioribus villosis, tubo longe exserto, labio superiore erecto, inferiore dimidio brevior, lobo medio subintegro, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

Hab. in Brasilia: in humidis sylvaticis provinciæ Minas Geraes ad Mariana *Martius!* Registo Velho et Rancho da Viuva prope San João del Rey *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil. et Mus. Reg. Monac.*)

A. S. persicifolia differt foliis angustioribus subtus subtomentosis et lana calycis. Corollæ etiam breviores vix ultra sesquipollicem longæ.

188. *S. HILARII*, fruticosa, ramis glabris, foliis petiolatis oblongo-vel ovato-lanceolatis acuminatis subserratis basi angustato-cuneatis utrinque viridibus læviusculis glabris, floralibus linearibus subdeciduis, racemis simplicibus abbreviatis, verticillastris paucis 2-4-floris approximatis, calycibus tubuloso-campanulatis extus lana brevi corrugatis, labio superiore integro dentibusque brevissimis, labii inferioris ovatis obtusiusculis, corollis calyce duplo longioribus lanatis, tubo longe exserto, labio superiore erecto, inferiore dimidio brevior, lobo medio subintegro, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

Hab. in Brasilia *A. de St. Hilaire!* (v. s. sp. in herb. *St. Hil.*)

Folia fere *S. persicifoliæ*, sed latiora, longius petiolata. Racemi vix folia ramalia superantes, verticillastris plerumque 2 vel 3, 2-4-floris. Flores magnitudine florum *S. persicifoliæ* vel parum minores, et lana calycis et corollæ diversi.

189. *S. SALICIFOLIA* (Pohl! Pl. Bras. Ic. 2. 140. t. 196*), fruticosa, ramis glabris pubescentibus vel rufo-villosis, foliis breviter petiolatis oblongo-lanceolatis subcrenato-serratis utrinque angustatis glabris

* I am not quite certain that I am correct in referring this plant to Pohl's *S. salicifolia*, although it agrees with his figure and description; for at the time I saw his specimens at Vienna, I had before me only an imperfect description of Sello's plant, taken from a very far-advanced specimen.

vel supra hispidulis et subtus tenuiter rufo-tomentosis, floralibus ovatis acutis deciduis, racemis elongatis, verticillastris sub-6-floris, calycibus tubuloso-campanulatis glabris vel pubescentibus, labio superiore integro dentibusque brevissimis labii inferioris acutis, corollis calyce plus duplo longioribus, tubo longe exserto, labio superiore erecto, inferiore dimidio brevior, lobo intermedio subintegro, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

S. arguta. Benth. in *Herb. Mus. Reg. Berol. MSS.*

Hab. in Brasilia: inter frutices circa Queluz provinciæ Minas Geraes *Pohl!* ad rivulum Montiqueira in parte orientali ejusdem provinciæ *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. sine fl. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil. et Mus. Cæs. Reg. Bras. Vind.*)

S. persicifoliæ affinis, sed calycibus glabris pubescentibusve et foliis minus sessilibus longioribus sat distincta videtur. Specimina Hilariana glabriora sunt quam Sellowiana.

190. *S. HÆNKEI*, fruticosa? ramis cano-tomentosis apice viscoso-villosis, foliis breviter petiolatis ovali-oblongis vel oblongo-lanceolatis acutis serratis basi rotundatis rugosis subtus albo-tomentosis, floralibus bractæformibus lanceolatis deciduis, racemis elongatis simplicibus vel verticillastris inferioribus irregulariter cymosis subramosis, calycibus tubuloso-campanulatis viscoso-villosis, labio superiore integro dentibusque labii inferioris obtusiusculis, corollis calyce subtriplo longioribus extus viscoso-villosis, tubo longe exserto, labio superiore recto, inferiore ei brevior, genitalibus exsertis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Peruvia *Hænke!* (*v. s. sp. in herb. Martius.*)

Species distinctissima et forma foliorum et inflorescentia. Verticillastri secundi, superiores sexflori vel interdum 8-10-flori, laxiusculi, inferiorum cymæ elongatæ, vel racemus basi ramosus. Corolla 15-16 lin. longa, coccinea, tubo tenui apice vix ampliato. Stylus apice tenuissimus, lobis inæqualibus.

191. *S. TORTUOSA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 222. t. 142).

Hab. in Andibus Quindiuensibus Novæ Granatæ *Humboldt et Bonpland.*

“*S. caule fruticoso erecto foliisque subtus fuscescenti-tomentosis ovato-oblongis acuminatis basi angustatis serratis, spicis secundis, verticillis subsexfloris approximatis, calycibus villosis-tomentosis, corollis elongatis, labio superiore galeato inferiore superante.*”

“Frutex ramosus, ramis tetragonis tortuosis fuscescentibus tomentoso-pubescentibus. Folia opposita, petiolata, ovato-oblonga, acuminata, basi angustata, serrata, supra tenuissime pubescentia, subtus rufescenti-tomentosa, 2-3-pollicaria. Petiolus tomentoso-pubescentis, subpollicaris. Spicæ terminales, verticillatæ, subflexuosæ, 3-4-pollicares, verticillis sub-6-floris approximatis. Flores secundi, pollicares, longe pedicellati. Calyx tubuloso-campanulatus, bilabiatus, villosus-tomentosus, fuscescens, striatus, labio superiore ovato-acuminato subulato, inferiore bifido laciniiis acuminato-subulatis. Corolla pubescenti-villosa, tubo calycem duplo triplo superante superne ampliato, labio superiore galeato emarginato externe villosus, labio inferiore brevior trilobo subconcavo lobis lateralibus rotundatis, intermedio multo minore abbreviato obcordato. Stamina et stigma paullo exserta.”—*Kunth l. c.*

Ex icone supra citata simillima videtur *S. curvifloræ*; sed ex descriptione Kunthiano diversa videtur præter habitatione, foliis majoribus fuscescentibus longius petiolatis, floribus minoribus longius pedicellatis, dentibus calycinis subulato-acuminatis.

192. *S. CURVIFLORA*, fruticosa, ramis tomentoso-pubescentibus, foliis petiolatis ovato-oblongis acutis crenato-serratis basi rotundatis vel angustatis supra pubescentibus subtus molliter cano-tomentosis, floralibus acuminatis deciduis, floribus secundis incurvo-subreflexis, verticillastris 6-10-floris, calycibus subsessilibus tubulosis pubescentibus, labio superiore dentibusque labii inferioris acuminatis, corollis calyce sub-4-plo longioribus extus pubescentibus, tubo superne subampliato, labio superiore erecto, inferiore brevior lobis lateralibus oblongis reflexis, medio rotundato, staminibus inclusis, connectivis postice brevissime dentatis deflexis lineari-subdilatatis connatis, stylo exserto glaberrimo.

Hab. in Mexico: prope Tlalpuxahua *G. J. Graham, Keerl!* (*h. s. sp. comm. a cl. Graham et v. s. sp. in herb. Martius.*)

Suffrutex divaricato-ramosus, ramis adscendentibus obtuse tetragonis, pubescentia brevi tomentosis. Folia 1-1½-pollicaria, ovata, vel superiora ovato-lanceolata, mollia, supra viridia, subtus canescentia, floralia inferiora interdum caulinis conformia, superiora calyce subbreviora, ante anthesin decidua. Calyces sub-6-nerves, molliter pubescentes, incurvi. Corolla roseo-coccinea, fere 1½-pollicaris, extus breviter pubescens, tubo inferne intus longe bidentato. Connectiva postice breviora quam antice. Styli lobus superior tenuissimus, inferiore duplo longior.

193. *S. NEOVIDENSIS*, fruticosa? ramis tenuiter pubescentibus, foliis petiolatis ovatis acuminatis serrato-crenatis basi rotundatis mollibus supra pubescentibus subtus pallide vel cano-tomentosis superioribus sessilibus, floralibus lanceolato-subulatis calyce longioribus demum deciduis, racemis elongatis simplicibus, verticillastris laxis remotis secundis 2-6-floris, calycibus tubuloso-campanulatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce 4-5-plo longioribus subglabris, tubo basi tenui apice valde ampliato, labio superiore recto, inferiore brevissimo, genitalibus exsertis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Brasilia: prope Rio de Janeiro *Princeps Maximilianus Neovidensis.* (*h. s. sp. comm. a cl. Martius.*)

Affinis *S. curvifloræ*, sed diversa ramis elongatis virgatis, foliis parum latioribus, racemis elongatis, foliis floralibus longioribus subpersistentibus nec ante anthesin deciduis, calycibus minoribus, corollis gracilioribus, et staminibus exsertis. Corollæ coccineæ, 14-15 lin. longæ. Stylus et filamenta tenuissima.

194. *S. FRUTICETORUM*, herbacea erecta elata glabriuscula, foliis petiolatis ovatis acuminatis serratis basi cuneatis utrinque viridibus glabris vel tenuissime pubescentibus, floralibus deciduis, racemis elongatis simplicibus, verticillastris subsexfloris distantibus, calycibus tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis obtusis, corollis calyce subtriplo longioribus extus villosis, labio superiore recto, inferiore brevissimo, staminibus corolla brevioribus, connectivis postice linearibus deflexis longitudinaliter connatis, stylo pubescente.

Hab. in Brasilia: inter frutices in Arrayal* *Princeps Maximilianus Neovidensis!* (*v. s. sp. in herb. Martius.*)

Caules 4-pedales. Folia 3-pollicaria. Calyces virides, herbacei vel submem-

* There appear to be many places so called in Brazil.

branacei nec colorati. Corolla intense rubra, forma fere *S. Neovidensis*, sed extus dense villosa, pilis subflavescentibus. Affinis *S. altissimæ*, sed foliis minoribus, calycibus glabris, et præsertim corollarum forma et villositate distincta.

195. *S. ALTISSIMA* (Pohl! Pl. Bras. Ic. 2. 136. t. 192), suffruticosa, ramis erectis elatis glabriusculis, foliis petiolatis ovato-oblongis acutis serratis basi angustato-cuneatis supra glabris subtus tenuissime pubescentibus, floralibus ovatis acuminatis deciduis, racemis elongatis simplicibus, verticillastris multifloris distantibus, calycibus tubulosis villosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce plus duplo longioribus glabris, tubo longe exserto, labiis subæqualibus, connectivis postice linearibus deflexis longitudinaliter connatis, stylo piloso.

Hab. in Brasilia: inter frutices ad Arrayal Santa Rita provinciæ Goyaz Pohl! (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind.)

Caulis ultrasexpedalis, versus apicem uti nervi foliorum et calyces pilis glandulosis villosus, cæterum planta fere glabra. Folia 4-5-pollicaria. Corolla pure rubra, 14 lin. longa, tubo vix ampliato, labio inferiore trifido lobis rotundatis.

196. *S. MOSCHATA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 293. t. 143).

Hab. in regione alsa prope Almaguer Novo Granatensium Humboldt et Bonpland.

“*S. caule fruticoso erecto glabro, foliis ovatis acutis basi cuneatis serratis glabris, verticillis 5-6-floris distantibus, calycibus glabris aut pilosis, corollis elongatis, galea angusta recta.*

“Frutex orgyalis, moschum redolens, ramosus, ramis quadrangularibus strictis glabris. Folia opposita, petiolata, ovata, acuta, basi in petiolum decurrentia et cuneata, argute serrata, utrinque glabra, venis subtus pilosis, 2-pollicaria. Petiolus subpollicaris, glabriusculus. Spicæ terminales, pedunculatæ, verticillatæ, 3-pollicares, verticillis 5-6-floris distantibus. Flores 15-16 lin. longi. Calyx tubulosus, striatus, glaber aut pilosus, junior fuscescenti-hirsutus, bilabiatus, labio superiore ovato-acuminato, inferiore bipartito laciniis acuminatis. Corolla purpurea, calyce triplo longior, externe hirsuta, tubo superne ampliato calyce duplo longiore, labio superiore elongato recto lineari-canaliculato emarginato, inferiore 2-3-plove brevior trilobo subconcavo lobis rotundatis, intermedio abbreviato retuso. Stylus labio superiore longior, latere superiore villosus.”—Kunth l. c.

In icone verticillastri biflori.

197. *S. HIRTELLA* (Vahl! Enum. 1. 249), caule herbaceo? ascendente viscoso-villoso, foliis petiolatis ovato-oblongis acutis crenatis basi rotundato-cuneatis utrinque viridibus subglabris, floralibus ovatis acutis deciduis, racemis elongatis simplicibus, verticillastris subsexfloris remotis, calycibus tubulosis hirsutissimis, labio superiore integro dentibusque labii inferioris ovatis obtusis, corollis calyce plus duplo longioribus extus villosis, tubo longe exserto, labiis subæqualibus, genitalibus longe exsertis, connectivis postice linearibus deflexis longitudinaliter connatis.

Hab. in Peruvia Dombey? (v. s. sp. in herb. Vahl. ex herb. Jussieu.)

Caules præsertim in parte superiore uti calyces pilis longis glanduliferis hirsuti. Folia plerumque glabra vel ad venas pubescentia. Corolla coccinea, pollicaris, tubo superne parum dilatato. Labia lata, inferius breviter trifidum vix patens.

198. *S. SECUNDA*, caule herbaceo erecto glabro, ramis pubescentibus, foliis petiolatis oblongis utrinque angustatis acutis serratis supra hispidulis subtus glabris, floralibus ovatis acuminatis deciduis, verti-

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cillastris sub-6-floris secundis, calycibus tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corolla calyce dimidio longiore extus pubescente, tubo breviter exserto subæquali vel ad faucem vix contracto, labiis abbreviatis subæqualibus, superiore erecto, inferiore lobis lateralibus oblongis, medio integro, genitalibus inclusis, connectivis edentulis postice deflexis linearibus longitudinaliter connatis, stylo glabro.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Affinis *S. lamiifoliæ*, sed distincta foliorum forma, racemis secundis, et floralibus coccineis; a *S. curviflora* foliis longioribus subtus glabris et floribus multo brevioribus. Rami juniores pilis reflexis pubescentes. Folia 2-3 poll. longa, 9-12 lin. lata, utrinque acuta. Racemi 4-6-pollicares. Corollæ coccineæ, vix semipollicares.

199. *S. CILIATA*, caule herbaceo? ramis elongatis glabris vel angulis petiolisque ciliatis, foliis petiolatis ovatis acutis crenato-serratis basi rotundatis vel subcordatis glabriusculis, floralibus ovatis acuminatis ciliatis demum deciduis, verticillastris sub-10-floris, calycibus tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis extus pubescentibus, calyce duplo triplo (?) longioribus, tubo superne ampliato, labiis subæqualibus, connectivis postice deflexis linearibus longitudinaliter connatis, stylo glabro exserto.

Hab. in dumetis Papantlæ Mexicanorum *Schiede et Deppe!* (*v. s. sp. in herb. Lindley.*)

Affinis *S. lamiifoliæ*, at foliorum forma, corollis coccineis, &c. distinctissima. Verticillastris vix secundis et foliis a *S. secunda* et *curviflora* differt. Rami (præsertim ad nodos), petioli et folia floralia pilis longis albis patentibus ciliati. Folia glabra vel supra et subtus ad nervos tenuiter pubescentia, sesquipollicaria, lato-ovata, acuta. Racemi 6-8-pollicares. Verticillastri remoti. Pedicelli calyce dimidio breviores. Calyces 10-13-nerves, 4-5-lineares, nervis pubescentibus. Corollæ coccineæ, in specimine vix apertæ.

200. *S. ELEGANS* (Vahl! Enum. 1. 238), caule herbaceo erecto glabro vel sparse piloso, foliis petiolatis ovatis acuminatis serratis basi rotundatis vel angustatis supra hispidulis subtus glabris, floralibus sessilibus ovatis acuminatis deciduis, verticillastris remotis sub-6-floris, calycibus breviter pedicellatis campanulatis glanduloso-villosis, labio superiore integriusculo brevissime 1-3-aristato, inferiore breviter 2-dentato 2-aristato, corolla extus pubescente calyce sub-6-plo longiore, tubo tenui subincurvo, labiis subæqualibus oblongis, staminibus subexsertis, connectivis postice longe linearibus deflexis longitudinaliter connatis, stylo exserto barbato.

S. incarnata. Cav. Ann. Scienc. Nat. 2. 112. Humb. et Kunth! Nov. Gen. et Sp. Amer. 2. 293. t. 144.

S. microculis. Poir. Dict. 6. 614.

Hab. in Mexico: prope Tlalpuxahua *G. J. Graham, Keerl! &c.* prope Guanaxuato *Humboldt et Bonpland.* (*h. s. sp. comm. a cl. Graham et v. s. sp. in herb. plur.*)

Caulis ex Kunthio 4-pedalis. Rami basi purpurascens, glabri, vel pilis sparsis patentibus hispidi, superne glanduloso-villosi. Folia 1-1½-pollicaria, supra pilis adpressis hispidula, subtus glabra, pallida, venosa. Racemi 4-6-pollicares vel ultra. Verticillastri inferiores fere 2 poll. distantes. Calycis labium superius patens, ovatum, sæpius breviter 3-aristatum, arista media longiore, inferius vix infra aristas

fissum. Corolla sanguinea, ultrapollicaris, tubo vix ampliato intus edentulo, labii inferioris lobi laterales oblongi, reflexi, medius integer, rotundatus. Connectiva postice fere ad basin tubi attingentia. Stylus bifariam barbatus, lobus superior tenuis, inferiore duplo longior.

201. *S. MENTIENS* (Pohl! Pl. Bras. Ic. 2. 137. t. 193), herba erecta, caule basi glabro apice patentim piloso, foliis petiolatis ovatis acuminatis serratis basi rotundatis utrinque viridibus glabris, floralibus parvis deciduis, racemis simplicibus elongatis, verticillastris remotis paucifloris, calycibus tubuloso-campanulatis basi viridibus villosis apice membranaceis coloratis, labio superiore integro dentibusque labii inferioris ovatis subulato-acuminatis, corollis calyce 4-5-plo longioribus, tubo longe exserto, labiis brevibus subæqualibus latis, genitalibus inclusis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Brasilia: ad Serra d'Estrella et circa Fazenda de Padre Correa provinciæ Rio de Janeiro *Pohl!* in cultis circa urbem Rio de Janeiro rarius *Martius!* (v. s. sp. in herb. Mus. Cæs. Reg. Bras. Vind. et Mus. Reg. Monac.)

Herba subsimplex, sesquipedalis, tota glabra, exceptis calycibus rachique racemi qui pilis albis patentibus dense villosi. Calyx florens 4 lin. longus, fructifer elongatus, apice membranaceus, glaber, coccineus. Corolla pulchre coccinea, fere glabra, 18-22 lin. longa, tubo in parte superiore parum ampliato. Labia erecta, inferiore brevissime trifido.

202. *S. SPLENDENS* (Sello! in Rœm. et Schult. Mant. 2. 185), caule fruticoso, ramis glabris, foliis petiolatis ovatis acuminatis crenato-serratis basi cuneatis rotundatis vel subcordatis utrinque glabris, floralibus ovatis acuminatis coloratis deciduis, verticillastris bifloris, calycibus campanulatis membranaceis coloratis glabris vel nervis pedicellisque villosis, labio superiore integro dentibusque labii inferioris lato-ovatis acutis, corollis extus glabris calyce subtriplo longioribus, tubo exserto subampliato, labio superiore erecto, inferiore abbreviato, staminibus subexsertis, connectivis postice deflexis linearibus obtusis longitudinaliter approximatis vel subconnatis, stylo tenuissime glabro.

S. brasiliensis. Spr. ! Syst. 2. 56.

S. colorans. Hortul.

S. splendens. Bot. Reg. 8. t. 6. 87. Reichb. Hort. Bot. 1. t. 51. Colla in Mem. Acad. Taur. 31. 331. t. 17.

Hab. in Brasilia: in sylvis ad Guaxindiba prope Rio de Janeiro *A. de St. Hilaire!* prope eandem urbem *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil.)

Species pulcherrima, in hortis nunc vulgatissima, foliis floralibus, calycibus corollisque coccineis distinctissima. Calyx fructifer ample campanulatus, fere pollicaris, glaber vel villosus. Corolla 2-2½-pollicaris, glabra, tubo parum ampliato; labium superius erectum, oblongum, inferioris lobi laterales oblongi, reflexi, medius integer, suberectus. Connectiva edentula.

203. *S. INVOLUCRATA* (Cav. Ic. 2. 114. t. 105), caule fruticoso, ramis elongatis glabris petiolatis ovatis acuminatis medio crenato-serratis basi rotundato-cuneatis glabris, floralibus bracteæformibus sessilibus lato-ovatis acuminatis coloratis ante anthesin imbricatis per anthesin deciduis, verticillastris subsexfloris approximatis, calycibus tubuloso-campanulatis striatis, labio superiore integro dentibusque abbre-

viatis labii inferioris ovatis setaceo-acuminatis, corollis calyce 3-5-plo longioribus, tubo ventricoso glabro, labiis abbreviatis subæqualibus, supremo erecto villosus, genitalibus inclusis, connectivis postice deflexis linearibus subdilatatis longitudinaliter approximatis, stylo barbato.

S. involucrata. *Bot. Reg.* 14. t. 1205. *Bot. Mag.* 55. t. 2872.

S. lævigata. *Humb. et Kunth! Nov. Gen. et Spec. Amer.* 2. 295. t. 147.

Hab. in Mexico: prope urbem Mexici *Humboldt et Bonpland*, ad Tlalpuxahua *Keerl!* (*h. s. c. et v. s. sp. in herb. Martius, Lambert et Mus. Par.*)

Rami pluri pedales, parce ramosi, obtuse tetragoni, sulcati, striati, virides. Folia distantia, longe petiolata, 2-3-pollicaria, supra glabra vel tenuissime pubescentia, subtus glaberrima, venosa. Racemi spicæformes, subglobosi, 4-6-pollicares. Pedicelli calycem subæquantes. Calyces 13-nerves, subcoriacei, viscosi, sæpe colorati, nervis validis pubescentibus. Corolla rosea, plerumque longe exserta, etsi in speciminibus *Keerlianis* dimidio brevior. Tubus sub fauce contractus, medio ventricosus, inferne (supra calycem) contractus, intus prope basin longe bidentatus. Labium superius galeatum, extus villosum; inferius parvum, vix patens, lobis lateralibus oblongis reflexis, medio rotundato. Connectiva edentula. Styli lobus inferior brevis, subcomplanatus, superiore subtriplo longior.

204. *S. SESSEI*, caule fruticoso, ramis glabriusculis, foliis petiolatis ovato-oblongis acuminatis basi rotundatis cuneatis vel angustatis utrinque glabris vel subtus pubescentibus, floralibus minoribus supremis minutis deciduis, verticillastris paucifloris paniculatis, calycibus inflato-campanulatis membranaceis coloratis glabris, labio superiore integro dentibusque labii inferioris ovato-rotundatis, corolla calyce subtriplo longiore extus pubescente, tubo longe exserto subæquali, labio superiore erecto integro, inferioris lobis lateralibus oblongis reflexis, medio parvo rotundato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Nova Hispania *Moçino et Sessé*, unde sub nomine *S. calyciniflatæ* miserunt. (*v. s. sp. in herb. Lambert.*)

Folia 2-3-pollicaria, subcoriacea. Panicula brevis, laxa. Calyces fructiferi maximi, coccinei. Corolla fere bipollicaris, coccinea, pubescens. Styli lobus superior longissimus.

205. *S. AGGLUTINANS* (*Lag. Gen. et Sp. Nov. p. 2. n. 12.*)

Hab. in Nova Hispania *Sessé, Moçino et Cervantes*, unde semina miserunt sub *S. fruticosæ* nomine (*Lagasca*).

"*S. foliis cordatis ovato-lanceolatis acutis serratis subtus candicantibus, corollis pubescentibus calyce inflato quadruplo longioribus, caule hirtio viscoso.*

"*Folia supra præcipue et præsertim juniora villosa-viscosa. Verticilli sub-6-flori, bracteati. Bracteæ ovatæ, acuminatæ, concavæ, calyce breviores, deciduæ. Corolla coccinea, fulgentissima. Stylus superne compressus ibidemque utrinque barbatus. Stigma glabrum, galea longius.*"—*Lag. l. c. ex Ræm. et Schult. Syst.* 1. 582.

Calycibus *S. Sessei* affinis videtur, sed foliis distinctissima.

206. *S. REGLA* (*Cav. 5. 33. t. 455*), caule fruticoso, ramis glabris vel sub axillis pubescentibus, foliis petiolatis rotundatis obtusis sinuato-crenatis basi lato-subcordatis coriaceis rugosis supra hispidulis subtus nervosis pubescentibus, floralibus subconformibus, verticillastris terminalibus paucifloris, calycibus subsessilibus tubulosis coloratis, labio superiore integro dentibusque labii inferioris lato-ovatis acutiusculis,

corolla calyce duplo longiore extus pubescente, tubo ventricoso, labio superiore erecto, inferiore vix longiore lobis lateralibus oblongis reflexis, medio rotundato integro deflexo, connectivis postice edentulis breviter productis deflexis obtusis longitudinaliter connatis, stylo glabro exserto apice subulato bifido.

S. deltoidea. *Pers. Syn.* 1. 28.

Hab. ad Vilalpando Mexicanorum *Mendez!* in fundo de Regla *Cavanilles.* (*h. s. c. comm. a cl. De Candolle.*)

Rami purpurascens, sæpius glabri vel sub axillas pilis brevibus pubescentes. Folia sesquipollicaria, supra pallida, pilis brevissimis aspera, subtus nervosissima, rufescentia, tenuiter pubescentia. Flores 3-6, in apicibus ramulorum brevium congesti, foliis calycem subexcedentibus intermixti. Calyces subsessiles, ample tubulosi, 8-9-lineares, molliter pubescentes, demum glabrati, nervosi, venosi, apice coccinei, basi virescentes. Corolla coccinea, brevissime pubescens, connectivo postice brevior quam in affinibus.

207. *S. GRAHAMI* (Benth. in Bot. Reg. 16. t. 1370), caule fruticoso, ramis glabris vel tenuissime bifariam pubescentibus, foliis petiolatis ovalibus obtusis basi rotundatis vel cuneatis medio irregulariter crenatis subglabris, floralibus ovatis acuminatis ciliatis deciduis, racemis elongatis, verticillastris bifloris, calycibus tubulosis striatis nervis pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis calyce duplo longioribus extus glabris, tubo longe exserto ventricoso, labio superiore erecto integro, inferiore duplo longiore, lobo medio latissimo emarginato, connectivis postice deflexis linearibus longitudinaliter connatis, stylo breviter barbato.

Hab. in Mexico *Moçino et Sessé! Keerl!* in montibus prope Tlalpuxahua *G. J. Graham!* prope urbem Mexico *Berlandier!* (*h. s. sp. comm. a cl. Graham.*)

Valde affinis *S. microphyllæ*, at differt caule elatiori (2-3-pedali), ramis bifariam pubescentibus, foliis majoribus non rugosis vix nervosis glabriusculis, racemis elongatis (ultra pedalis), calycibus sæpius coloratis, floribus paulo majoribus.

208. *S. MICROPHYLLA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 294), caule fruticoso, ramis tenuiter pubescentibus, foliis petiolatis ovatis obtusis minutis regulariter crenatis basi rotundatis rugosis pubescentibus, floralibus ovatis acuminatis ciliatis deciduis, racemis brevibus, verticillastris bifloris, calycibus tubulosis striatis nervis pubescentibus, labio superiore integro dentibusque labii inferioris acuminatis, corollis calyce duplo longioribus extus glabris, tubo ventricoso calycem superante, fauce contracta, labio superiore recto, inferiore duplo longiore lobis rotundatis, medio latissimo, connectivis postice deflexis linearibus longitudinaliter connatis, stylo breviter barbato.

Hab. in locis alpinis Novæ Hispaniæ prope Sancta Rosa, Moran et Pachucan *Humboldt et Bonpland*, ad Vilalpando *G. J. Graham!* (*h. s. sp. comm. a cl. Graham et a cl. Presl e collect. Hænkeana.*)

Frutex humilis, vix pedalis, ramis tetragonis, faciebus omnibus tenuiter tomentoso-pubescentibus. Folia 3-4-linearia, exacte ovata, crassiuscula, rugosa, subtus nervoso-utrinque tomentoso-pubescentia. Racemi 2-3-pollicares, verticillastris 4-5. Calyces semipollicares, labio superiore lato-ovato, inferioris dentibus lanceolatis, omnibus breviter acuminatis. Corolla rubro-purpurea, in siccitate coccinea, tubo

vix calycem excedente sub fauce valde inflato intus basi tridentato, labii inferioris lobus medius maximus, lateralia minora patentia. Connectiva edentula. Stylus breviter exsertus, subtus sub apice breviter barbatus, lobis subulatis, superiore longiore. Achenia oblonga, lævia.

209. *S. SUBROTUNDA* (St. Hil. MSS.), herbacea erecta ramosa glabra, foliis petiolatis lato-ovatis subrotundis obtusiusculis crenato-serratis basi rotundato-truncatis utrinque viridibus glabris, racemis elongatis simplicibus, verticillastris laxis 2-6-floris, calycibus pedicellatis tubuloso-campanulatis pubescentibus apice coloratis, corollis calyce plus duplo longioribus, tubo exserto ampliato, labio superiore recto, inferiore patente, lobo medio latissimo, genitalibus exsertis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Brasilia *A. de St. Hilaire* ! (v. s. sp. in herb. *St. Hilaire*.)

Affinis *S. coccineæ*, sed glabritie et foliorum forma diversa. Corollæ tubus in parte superiore amplior, et labium inferius brevior.

210. *S. COCCINEA* (Linn. ! Mant. 88), caule herbaceo erecto cano-pubescente, foliis petiolatis ovatis acutis crenatis basi cordatis supra pubescentibus subtus cano-tomentosis, floralibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris 6-10-floris remotis, calycibus tubuloso-campanulatis striatis pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis glabris calyce duplo longioribus, tubo exserto superne ampliato, labio superiore abbreviato erecto integro, inferiore subtriplo longiore lobis rotundatis, medio latissimo emarginato, connectivis.

S. coccinea. *Murr. Comm. Gott.* 1778. 86. t. 1.

Horminum coccineum. *Mærch. Meth.*

S. rosea. *Vahl ! Enum.* 1. 244.

S. glaucescens. *Pohl ! Pl. Bras. Ic.* 2. 136. t. 192.

Hab. in America æquinotiali: in Florida orientali *Bartram* ! in Georgia meridionali *Elliott* ! *Pursh* ! in Jamaica *Dancer* ! in pascuis camporum inter gramina in via ad Rio Claro provinciæ Goyaz *Pohl* ! et in India orientali ad ripas Gangis et circa Maderaspata e hortis disseminata *Shuter* ! *Heyne*, &c. (h. s. et v. s. sp.)

Caulis 1-2-pedalis, ramosus, incanus, raro pilis patulis basi hispidus. Folia 1-2-pollicaria, subtus mollissima, floralia calyce breviora. Calyx sæpe purpurascens. Corolla coccinea. Specimina indica nullo modo ab americanis differunt.

211. *S. PSEUDOCOCCINEA* (Jacq. ! Coll. 2. 302. Ic. Rar. 22. t. 209), caule herbaceo erecto pilis longis patentibus hispido, foliis petiolatis ovatis acutis crenatis basi rotundatis vel subcordatis supra pubescentibus subtus tomento cano pubescentibus, floralibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris 6-10-floris remotis, calycibus tubulosis striatis pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis extus tenuiter pubescentibus calyce duplo longioribus, tubo exserto æquali, labio superiore erecto, inferiore duplo longiore lobis rotundatis, medio latissimo emarginato, connectivis postice deflexis linearibus longitudinaliter connatis, stylo exserto glabro.

S. pseudococcinea. *Bot. Mag.* 55. t. 2864.

Hab. in America æquinoctiali: in Nova Andalusia in declivitate montis Tumiriquiri *Humboldt et Bonpland!* in Nova Hispania *Moçino et Sessé!* in Carraccas *Herb. Hooker (specimina in ins. Trinitatis culta ex sem. Caracasensis).* (v. s. sp. in herb. *Lambert.*)

A *S. coccinea* differt caule elatiori (3-pedali vel ultra) longe piloso nec canotomentoso, foliis majoribus basi sæpius rotundatis nec cordatis, floralibus majoribus, corollæ labio superiore paullo longiore. Connectiva sub insertione breviter dentata.

212. *S. PHÆNICEA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 302. t. 155).

Hab. ad radices montium Cotopaxi et El Corazon inter Mulalo et Tambillo regno Quitensi *Humboldt et Bonpland.*

“*S.* caule fruticoso erecto ramisque muricato-hispidis, foliis ovatis acutis subcordatis serratis glabris, verticillis multifloris distantibus, calycibus hispido-glandulosis, galea abbreviata, staminibus longe exsertis.

“Frutex erectus, quadripedalis, ramosus, ramis tetragonis quadrisulcatis muricato-hispidis. Folia opposita, petiolata, ovata, acuta, subcordata, serrata, supra glabriuscula, nervo medio pilosiusculo, subtus glaberrima, sesquipollicaria, graveolentia. Petioli 6-7 lin. longi, canaliculati, interne pilosi. Spicæ terminales, subpedales, verticillatæ, verticillis multifloris distantibus. Pedunculus communis et rhachis purpurascens, piloso-glandulosi. Bractæ ovato-oblongæ, acutæ, pilis articulatis glanduliferis ciliatæ, pedicello piloso longiores. Calyx tubulosus, bilabiatus, striatus, hispido-glandulosus, labio superiore acuto, inferiore bifido laciniis acuminatis. Corolla sanguinea, externe puberula, tubo calycem duplo superante, labio superiore abbreviato obtuso, inferiore trifido patente, lacinia intermedia maxima emarginata biloba, lobis rotundatis. Stamina generis longe exserta. Stylus stamina superans, filiformis, glaber. Stigma bifidum, laciniis acutis inæqualibus. Fructus in fundo calycis. Achenia 4, oblonga, obtusa, obsolete trigona, externe convexiuscula, interne angustata, glabra, fusca.”—*Kunth l. c.*

Media videtur inter *S. pseudococcineam* et *S. pulchellam*.

213. *S. PULCHELLA* (DC. Cat. Hort. Monsp. 142), caule fruticoso, ramis pubescentibus, foliis petiolatis ovatis apice angustatis obtusiusculis crenatis basi latis cordatis membranaceis rugosulis subglabris, floralibus membranaceis ovatis acuminatis deciduis, racemis simplicibus, verticillastris sub-10-floris, calycibus tubulosis striatis tenuiter pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce duplo triplove longioribus extus glabris, tubo longe exserto ventricosus basi intus bidentato, labiis subæqualibus, superiore recto integro, inferioris lobis lateralibus abbreviatis oblongis deflexis, medio lato-rotundato breviter emarginato, connectivis postice supra subulato-dentatis deflexis linearibus longitudinaliter connatis, stylo supra brevissime barbato.

S. pulchella. *Colla Hort. Rip.* 125. t. 16.

Hab. in Mexico *Moçino et Sessé!* (h. s. c. et v. s. sp. in herb. *Lambert.*)

Affinis *S. fulgenti*, a qua differt foliis tenuioribus subglabris, caule glabriore, corollis brevioribus glabris, labii inferioris lobis lateralibus minoribus, medio majore, stylo supra vix barbato.

214. *S. FULGENS* (Cav. Ic. 1. 15. t. 23), caule fruticoso, ramis piloso-hirsutis, foliis petiolatis ovatis acutis crenato-serratis basi cordatis supra pubescentibus subtus albo-tomentosis vel lanatis, floralibus sessilibus ovatis acuminatis deciduis, verticillastris 6-floris, calycibus

pedicello longioribus tubuloso-campanulatis pubescentibus, labio superiore integro dentibusque labii inferioris ovatis breviter et obtuse acuminatis, corollis calyce duplo longioribus, tubo exserto ventricoso basi intus bidentato, fauce contracta, labio superiore extus villosa erecto integro, inferioris lobis lateralibus oblongis reflexis, medio rotundato integro deflexo, staminibus inclusis, connectivis postice subulato-dentatis deflexis linearibus longitudinaliter connatis, stylo plumoso vix exserto.

S. cardinalis. *Humb. et Kunth Nov. Gen. et Spec. Amer.* 2. 301. t. 151.

S. fulgens. *Brit. Fl. Gard. ser.* 2. v. 1. t. 59. *Bot. Reg.* 16. t. 1356.

Hab. in montosis Mexicanis; prope Tlapuxahua *G. J. Graham!* prope Lerma *Keerl! &c. (h. s. sp.)*

Frutex 2-3-pedalis vel ultra, ramis numerosis nunc fere glabris sæpius pilis densis patulis hirsutis. Folia magnitudine et hirsutie variabilia, nunc vix pollicaria, supra hispidovillosa, subtus lana densa alba vestita, in speciminibus cultis sæpe 3-pollicaria, utrinque vix pubescentia, omnia mollia, subrugosa, floralia calyce sublongiora, basi ovato-dilatata, acumine longo obtuso, integerrima, pubescentia, sæpius colorata, ante anthesin decidua. Racemus semipedalis pedalisve, verticillastris ultra pollicem distantibus. Calyces breviter pedicellati, 6-8-lineares, sub-10-nerves. Corolla speciosa, coccinea, 2-pollicaris. Stylus dense bifariam barbatus, labio superiore inferiorem parum superante.

215. *S. RUBESCENS* (*Humb. et Kunth Nov. Gen. et Spec. Amer.* 2. 301. t. 154).

Hab. in temperatis regni Quitensis *Humboldt et Bonpland.*

“*S. caule fruticoso erecto canescente glabro, foliis ovatis angustato-acutis cordatis crenatis subtus tenuissime cano-tomentosis, spicis paniculatis, verticillis 4-6-floris distantibus, calycibus densissime piloso-glutinosi.*

“*Caulis fruticosus, erectus, ramosus, ramique obtusi, tetragoni, canescentes, glabri. Folia opposita, longe petiolata, 4-pollicaria, ovata, angustato-acuta, cordata, crenata, supra tenuissime pubescentia, subtus tomento tenui incano oblecta. Petioli 2-3-pollicares, glabri. Paniculae terminales, pilis densissimis purpureis patentibus glanduliferis obsitæ. Flores verticillati, verticillis 4-6-floris distantibus. Calyx tubulosus, bilabiatus, purpureus, piloso-glandulosus, labio superiore ovato acuto, inferiore bifido laciniis acuminatis. Corolla amœne purpurea, calyce duplo longior, glabra, ex Bonpl.*”—*Kunth l. c.*

216. *S. SQUALENS* (*Humb. et Kunth Nov. Gen. et Spec. Amer.* 2. 297).

Hab. in Andibus Peruvianorum *Humboldt et Bonpland.*

“*S. caule fruticoso erecto ramisque piloso-glutinosi, foliis ovato-oblongis obtusis cordatis crenatis coriaceis supra rugosis pilosis subtus incano-tomentosis, verticillis bifloris distantibus, bracteis ovato-oblongis calyce hirtis brevioribus deciduis.*

“*Caulis fruticosus, erectus, ramosus, ramique tetragoni, purpurei, glutinosi, pilosi. Folia (Betonice) opposita, petiolata, ovato-oblonga, cordata, obtusa, irregulariter crenata, coriacea, supra rugoso-venosa et pilosa, subtus incano-tomentosa, 1½-2-pollicaria. Petioli 8-12 lin. longi, glutinosi et pilosi. Spicæ terminales, 3-4-pollicares, verticillatæ, verticillis bifloris parum distantibus. Bracteæ ovato-oblongæ, pilosæ, glutinosæ, calyce breviores, deciduæ. Calyx tubulosus, bilabiatus, striatus, hirtus, labio superiore acuminato, inferiore bifido laciniis acuminatis. Corolla purpurea, calyce duplo longior, pubescens, ex Bonpl. Stamina exserta. Specimina florifera haud suppetunt.*”—*Kunth l. c.*

217. *S. AYAVACENSIS* (*Humb. et Kunth Nov. Gen. et Spec. Amer.* 2. 298).

Hab. in temperatis Peruviae Ayavacam inter et ripam fluminis Cutaco *Humboldt et Bonpland.*

“ S. caule fruticoso erecto ramisque flavo-hirsutis, foliis ovatis acutis cordatis crenatis subtus pilosis, verticillis sub-8-floris distantibus, calycibus elongatis piloso-glutinosus.

“ Frutex 6-pedalis, erectus, ramosus, ramis tetragonis flavo-hirsutis. Folia opposita, petiolata, ovata, cordata, acuta, irregulariter crenata, supra pilis parvis appressis obsita, subtus pilosa, 2-2½ poll. longa. Petioli 4 lin. longi, flavo-hirsutissimi. Spicæ semipedales, terminales, sessiles, verticillatæ, verticillis 6-8-floris distantibus, rhachi pedicellisque hirsutis. Calyx 8-9 lin. longus, tubulosus, bilabatus, striatus, piloso-glandulosus, labio superiore acuminato-subulato, inferiore bifido laciniis acuminato-subulatis. Corolla mihi ignota, purpurea, ex Bonpl.”—
Kunth l. c.

218. *S. ACUMINATA* (Ruiz et Pav. ! Fl. Per. et Chil. 1. 24. t. 37. f. b.), caule suffruticoso erecto villosus, foliis petiolatis ovatis acuminatis crenato-serratis basi cordatis rugosis supra hispidulis subtus concoloribus ad nervos pubescentibus, floralibus calyci subæqualibus ovato-oblongis obtusis membranaceis ciliatis deciduis, racemis subsimplicibus, verticillastris subsexfloris remotis, calycibus pedicellatis tubulosus striatis pubescentibus, labio superiore integro dentibusque labii inferioris lanceolatis subincurvis, corollis calyce duplo longioribus, tubo exserto subincurvo, labiis subæqualibus, superiore integro, inferioris lobis parvis rotundatis, medio integro, connectivis postice deflexis linearibus longitudinaliter connatis.

Hab. in Peruvia : in præruptis Pillao et Cantæ *Ruiz et Pavon !* (v. s. sp. in herb. Lambert.)

Caulis orgyalis, tetragonus, sulcatus, pilis articulatis patentibus villosus. Folia longe petiolata, ample cordata, floralia glumacea, incarnata. Racemi longi, laxi, pauciflori. Pedicelli calycem subæquantes. Calyx fere pollicaris, dentibus subincurvis. Corolla incarnata.

219. *S. LONGIFLORA* (Ruiz et Pav. Fl. Per. et Chil. 1. 23. t. 10. f. a.), caule fruticoso erecto villosus viscosus, foliis petiolatis ovatis acuminatis serratis basi cordatis pubescenti-hirsutis subtus albo-tomentosis, floralibus ovatis acutis coloratis deciduis, racemo simplici, verticillastris paucifloris distantibus, calycibus ovatis inflatis coloratis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis longissimis calyce quintuplo longioribus extus hirsutis, tubo amplo longe exserto, labiis subæqualibus, superiore erecto, inferioris lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Peruvia : in præruptis profundis Tarmæ ad Huichay prædium *Ruiz et Pavon !* (v. s. sp. in herb. Lambert.)

Frutex triorgyalis, ramosissimus, ramis villosis et glanduloso-pubescentibus. Folia ampla, longe cordiformia. Racemi elongati, nutantes. Corolla 5-pollicaris, speciosa, lanæ coloris.

d. CÆRULEÆ. Corollæ cæruleæ vel cæruleo-violaceæ.

220. *S. RUMICIFOLIA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 305).

Hab. juxta urbem Quito et in radicibus montis Javirac *Humboldt et Bonpland.*

“ S. caule fruticoso erecto ramisque pubescenti-hirtis, foliis oblongis hastatis obtusiusculis crenatis subtus incanis et tomentoso-lanatis, paniculis terminalibus, verticillis bifloris parum remotis, calycibus piloso-glandulosus.

July 1833.

Q Q

"Frutex 4-5-pedalis, erectus, ramosus, ramis tetragonis pubescenti-hirtis. Folia opposita, petiolata, oblonga, sagittato-hastata, crenata, obtusiuscula, reticulato-venosa, supra rugosa pilisque conspersa, subtus tomentoso-lanata et incana, 4-pollicaria, basi $2\frac{1}{2}$ poll. lata. Petioli 1-1 $\frac{1}{2}$ -pollicares, incano-lanati. Paniculæ longe pedunculatæ, quadripollicares, patentes, spicis verticillatis, verticillis bifloris parum remotis. Pedunculi ramique paniculæ glanduloso-pubescentes. Calyx campanulatus, bilabiatus, striatus, piloso-glandulosus, labio superiore oblongo acuto, inferiore bifido laciniis acutiusculis. Corolla mihi ignota."—*Kunth l. c.*

221. *S. PETIOLARIS* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 304).

Hab. in America æquinoctiali: in locis calidis in ripa fluvii Magdalenæ *Humboldt et Bonpland*.

"*S. caule herbaceo erecto ramoso tenuissime pubescente, foliis longissime petiolatis deltoideis cordato-hastatis obtusiusculis irregulariter crenato-serratis hirtis, verticillis bifloris distantibus, calycis piloso-glandulosi labio superiore tridentato.*

"*Herba erecta, sesquipedalis, ramosa. Caulis ramique tetragoni, tenuissime pubescentes. Folia opposita, longissime petiolata, deltoidea, subtripollicaria, cordato-hastata, obtusa, grosse crenato-serrata, utrinque præsertim subtus in venis pilis tenuibus sparsis albicantibus appressis hirta, reticulato-venosa, membranacea, tripollicaria, basi 3 poll. lata. Petioli 4-6-pollicares, canaliculati, hirti. Spicæ longe pedunculatæ, terminales, sæpius ternæ, verticillatæ, verticillis bifloris distantibus. Bracteæ oblongæ, pubescentes. Calyx campanulatus, bilabiatus, striatus, piloso-glandulosus, labio superiore tridentato, inferiore bifido laciniis acuminatis. Corolla cærulea, pubescens, ex Bonpl.*"—*Kunth l. c.*

222. *S. SAGITTATA* (Ruiz et Pav. ! Fl. Per. 1. 23. t. 35. f. a.), caule herbaceo erecto villosa, foliis petiolatis triangularibus sagittatis acutis crenato-serratis rugosissimis molliter villosis, floralibus ovatis acuminatis deciduis, racemis elongatis ramosis, verticillastris remotis 2-6-floris, calycibus pedicellatis ovatis villosis, labio superiore lato-ovato obtuso vel tridentato, inferiore bifido dentibus acutiusculis, corollis calyce quadruplo longioribus, tubo exserto subtus subinflato, labio superiore recto integro, inferiore vix majore, lobo medio emarginato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Peruvia: copiose in hortis, versuris et ruderatis Tarmæ, Huarocheri et Huanuci *Ruiz et Pavon !* in monte Quindiu Novo Granatensium *Humboldt et Bonpland*, ad Obrajillo *Mathews !* (h. s. sp. comm. a cl. *Lindley*, et v. s. sp. in herb. *Lambert*.)

Herba perennis. Caulis orgyalis, erectus, inferne ramosissimus, ramis brachiatis tetragonis sulcatis villosis et glanduloso-pubescentibus, sæpe erectis, alioquin procumbentibus radicanibus. Folia longe petiolata, deflexa, 2-3-pollicaria, auriculis acutis divergentibus. Racemi sæpe pedales, paniculam brachiata parce ramosam formantes. Verticillastri pauci, sæpius 2-4- rarius 6-flori. Calyces purpureo-violacei, labio superiore concavo nec recurvo. Corolla obscure cærulea (ex R. et P.), extus pubescens, labio inferiore propendente lobis rotundatis.

"Vulgo *Salvia Real*. Incolæ *Salviæ officinalis* loco hanc speciem substituunt."—*Ruiz et Pavon l. c.*

223. *S. SCUTELLARIOIDES* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 303. t. 158), herbacea adscendens, ramis piloso-pubescentibus vel glabriusculis, foliis petiolatis ovato-deltoideis acutiusculis crenato-serratis basi cordato-hastatis utrinque hirtellis, floralibus ovatis deciduis, racemis subsimplicibus elongatis, verticillastris distantibus subbifloris, calycibus campanulatis viscoso-villosis, labio superiore breviter tridentato, inferiore bifido, dentibus omnibus acutis, corollis calyce

triplo longioribus, tubo longe exserto ventricosus, labio superiore recto, inferiore ei sublongiore, lobo medio emarginato, genitalibus longe exsertis, connectivis postice linearibus deflexis longitudinaliter connatis.

Hab. in America æquinoctiali: in regno Quitensi prope Chillo *Humboldt et Bonpland*, in humidis arenosis terræ frigidæ prope Santa Fé de Bogota *Gudot!* (*v. s. sp. in herb. Soc. Hort. Lond.*)

Caules basi procumbentes videntur, ramis pedalibus, in parte superiore subnudis. Folia sesquipollicaria, latitudine longitudinem subæquantia. Calyces breves, pilis glutinosis dense obsiti. Corolla pollicaris, cœrulea, extus leviter pubescens. Tubus ventricosus-inflatus, sub fauce parum contractus. Labium superius subintegrum, inferioris lobi rotundati, medio multo latiore. Forma calycis et labii inferioris corollæ fere *Brachyantharum*, sed tubus longe exsertus.

224. *S. PATENS* (Cav. Ic. 5. 33. t. 454), caule herbaceo erecto piloso, foliis petiolatis ovato-deltoides crenatis basi hastatis vel supremis rotundatis utrinque hispidis, floralibus lanceolato-linearibus, verticillastris paucis remotis, floribus maximis, calycibus campanulatis villosis, labio superiore brevissime tricuspidato, inferiore bifido dentibus acuminatis, corolla calyce subtriplo longiore, fauce ampliata, labio superiore subrecto integro, inferioris lobis lateralibus oblongis reflexis, medio rotundato acuminato, staminibus longe exsertis, connectivis postice deflexis edentulis dilatatis longitudinaliter connatis, stylo longissimo glabro.

S. grandiflora. *Nee (ex Cav. l. c.)*

S. spectabilis. *Humb. et Kunth! Nov. Gen. et Spec. Amer. 2. 304.*

Hab. in montibus Mexicanorum: prope Tlalpuxahua! *G. J. Graham* ad Vilalpando prope Guanaxuato *Mendez!* Guanaxuato et San Rosa *Humb. et Bonpland!* in umbrosis prope Real del Monte *Cavanilles.* (*h. s. sp.*)

Caules 1-2-pedales, simpliciusculi, pilis patentibus albis articulatis in parte superiore caulis subglandulosis villosi. Folia inferiora petiolata, basi late hastato-cordata, superiora subsessilia, omnia acutiuscula, breviter crenato-serrata, supra rugoso-hispida, subtus pallidiora, hispida vel in speciminibus nonnullis pilis albis rigidis densissime villosa, floralia sessilia, integerrima, acutiuscula, glanduloso-pilosa, inferiora lanceolata, suprema linearia, fere pollicaria. Pedicelli calyce breviores. Calyx campanulatus, 8-9-linearis, vix nervosus, profunde bilabiatus, pilis brevibus mollibus pubescens. Corolla cœrulea, ultra 2 poll. longa, extus breviter pubescens, tubo crasso, fauce ampliata, labiis hiantibus suberectis, superiore longiore, inferioris lobo medio dependente lato-ovato acuminato. Stamina corollam fere pollicem, stylus sesquipollicem excedentes.

225. *S. LONGISTYLA*, caule herbaceo? erecto tomentoso-villoso, foliis petiolatis lato-ovatis acuminatis crenatis basi ample cordatis rugosis utrinque molliter pubescenti-villosis superioribus sessilibus, floralibus ovatis longe acuminatis ciliatis deciduis supremis subcomosis, verticillastris 6-10-floris, calycibus elongato-tubulosis basi striatis molliter pubescentibus, labio superiore integro dentibusque brevissimis labii inferioris longe setaceo-acuminatis, corolla calycem vix duplo longiore, tubo æquali, labio superiore erecto, inferiore brevioris lobis ovatis lateralibus reflexis, medio bifido, genitalibus exsertis, connectivis postice deflexis longissime productis obtusis longitudinaliter connatis, stylo glabro, lobo superiore longissimo subulato.

Hab. in regno Mexicano: prope Zinepecuaro *G. J. Graham!* (*h. s. sp. comm. a cl. Graham.*)

Caules crassi, subcarnosi, lana subcanescente brevi villosi. Folia sæpius basi inæqualiter cordata, inferiora ampla, superiora multo minora, floralia ante anthesin imbricato-comosa, molliter pubescentia, striata, acumine longo subulato molli. Calyx fere pollicaris, pedicello subæqualis; labia ovata, acuta, inferius vix fissum, molliter 2-aristatum, superius 1-aristatum. Corolla cœrulea, subincurva, tubo calycem breviter superante, superne parum ampliata. Labium inferius brevissimum, patens, superius subduplo longius, extus glabrum vel tenuiter pubescens. Connectiva edentula, postice linearia, fere ad basin tubi attingentia.

226. *S. AMETHYSTINA* (Sm.! Ic. ined. 2. 27. t. 27), fruticosa, ramis albo-villosis, foliis petiolatis ovatis acutis basi profunde cordatis auriculis rotundatis rugosis supra pubescentibus subtus cano-vel albo-tomentosis, floralibus lanceolatis deciduis, racemis elongatis simplicibus, verticillastris laxe sexfloris remotis, calycibus tubuloso-campanulatis extus villosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce subduplo longioribus, tubo exserto ventricosus, labiis subæqualibus, inferioris lobis lateralibus oblongis reflexis, medio subintegro, genitalibus inclusis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo barbato.

S. venusta. Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 301. t. 43. (*S. mollis* in icone.)

Hab. in America æquinotiali: in Andibus Quindiuensium inter Quebrada de Toche et la Seja Humboldt et Bonpland, in Nova Granada legit Escalloni sec. Mutis (Smith), in humidis terræ frigidæ prope Santa Fé de Bogota Gudot! (v. s. sp. in herb. Soc. Hort. Lond.)

Frutex erectus. Folia longiuscule petiolata, 2-3½ poll. longa, crenato-serrata. Racemi semipedales. Pedicelli calycem subæquantes. Calyces *S. mexicanæ*, vel parum validiores. Corollæ forma corollarum *S. fulgentis* vel *mexicanæ*, cœruleæ, pollicares. Foliis *S. fulgenti* affinis, floribus *S. mexicanæ*.

227. *S. CYANEA* (Benth. in Herb. Lambert MSS. non Fisch.), caule fruticoso, ramis tetragonis cano-pubescentibus, foliis petiolatis ovatis acuminatis serrato-crenatis basi cordatis utrinque pubescentibus, floralibus ovatis acuminatis membranaceis deciduis, racemis simplicibus, verticillastris laxe 6-10-floris subsecundis, calycibus tubulosis rufo-villosis, labio superiore brevissime tricuspidato, inferioris dentibus lanceolatis acutis, corollis calyce subtriplo longioribus, tubo exserto superne ventricosus, labiis subæqualibus, superiore recto, inferioris lobis lateralibus oblongis reflexis, medio rotundato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

Hab. in Nova Hispania Mocino et Sessé! (v. s. sp. in herb. Lambert.)

Affinis *S. amethystinæ*, sed differt foliis magis acuminatis et præsertim calycibus tenuioribus rufo-villosis, labio superiore tricuspidato. Corolla pubescens, magnitudine *S. amethystinæ*, sed tenuior.

228. *S. MEXICANA* (Linn.! Spec. 37), caule fruticoso erecto tomentoso, foliis petiolatis ovatis oblongisve utrinque angustatis crenato-serratis tomentoso-pubescentibus, floralibus ovatis acutis deciduis pedicello vix longioribus, verticillastris 6-20-floris, calycibus elongato-tubulosis nervis ciliatis, labio superiore integro dentibusque labii inferioris ovatis acutis muticis, corolla calyce duplo longiore, tubo ad medium inflato sub fauce contracto, labiis subæqualibus, superiore recto breviter pubescente, inferioris lobis lateralibus oblongis reflexis, medio minore

rotundato emarginato deflexo, connectivis postice deflexis obtusis longitudinaliter connatis, stylo barbato, lobis subulatis, superiore longiore.

Jungia altissima. *Mæench. Meth.*

Sclarea mexicana. *Dill. Hort. Elth.* 339. t. 254. f. 330. *Mill. Dict. n.* 14.

Salvia mexicana. *Cav. Ic.* 1. 16. t. 26.

S. melissæfolia. *Desf. ! Cat. Hort. Par.*

β *major*, foliis junioribus densius velutino-tomentosis.

S. papilionacea. *Cav. Ic.* 4. 9. t. 319.

S. nitidifolia. *Ort. Dec.* 6.

Hab. prope Pazcuaro Mexicanorum locis temperatis *Humboldt et Bonpland*, prope urbem Mexico *G. J. Graham ! &c.* (*h. s. sp.*)

Rami obtuse tetragoni, sulcati, tomento brevi denso. Petioli 1-1½-pollicares. Folia 2-3-pollicaria, nervosa, acuminata, breviter crenato-serrata, supra pubescentia, in nervis tomentosa, subtus tomento densiore in junioribus præsertim in var. β sublanato, basi in var. α cuneata vel longe angustata, in var. β sæpius latere uno rotundata, altero cuneata; floralia sessilia, lato-ovata, villosa, breviter acuminata, per anthesin decidua. Racemi sæpe pedales, verticillastris approximatis 10-20-floris. Pedicelli 4-6-lineares, villosi. Calyces 8-10-lineares vel fere pollicares; in var. β ampli, sæpe nigrescentes, glabri, nervis ciliatis. Corolla cœrulea, tubo oblongo supra basin contracto intus bidentato. Connectiva edentula.

The var. β is a large and handsome plant, but I cannot find any specific difference: the wings of the corolla figured by Cavanilles must be the side lobes of the middle lip, split up by accident.

229. *S. GLABRATA* (*Humb. et Kunth ? Nov. Gen. et Spec.* 2. 299), fruticosa? glabra, foliis petiolatis ovatis acuminatis serrato-crenatis basi cordatis utrinque viridibus glabris, floralibus parvis deciduis, racemis elongatis simplicibus, verticillastris laxis 6-10-floris, calycibus longe pedicellatis tubuloso-campanulatis glabriusculis, labio superiore integro dentibusque labii inferioris subulato-acuminatis, corollis calyce plus duplo longioribus, tubo longe exserto ventricosus, labiis subbrevis, superiore recto villosus, inferiore longiore, lobo medio latissimo, stylo barbato.

Hab. in Mexico *Karwinski !* in montibus temperatis Novæ Hispaniæ inter cœnobium Caripense et villam Coccollar *Humboldt et Bonpland ?* (*v. s. sp. in herb. Mus. Reg. Monac.*)

Specimen Karwinskianum omnino cum descriptione Kunthiana quadrat, sed herbaceum videtur, et folia majora (2-4-pollicaria). Corolla violacea, pollicaris. Tubus medio ventricosus, ad faucem parum contractus. Calyces profunde bilabiati, virides. Stamina inclusa. Stylus breviter exsertus.

230. *S. CONCOLOR* (*Herb. Lambert MSS.*), caule fruticoso (?), ramis glabris, foliis petiolatis ovatis acuminatis serratis basi truncatis glabris, floralibus deciduis, racemis elongatis simplicibus, verticillastris remotis multifloris, calycibus longe pedicellatis tubulosis striatis villosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce duplo longioribus extus pubescentibus, tubo tenui exserto superne ventricosus, labiis subæqualibus, superiore recto integro, inferioris lobis lateralibus oblongis reflexis, medio integro, connectivis postice linearibus deflexis longitudinaliter connexis, stylo glabro.

Hab. in Mexico *Campbell !* (*v. s. sp. in herb. Lambert.*)

A *S. amethystina* differt foliis glabris concoloribus basi truncatis nec cordatis, floribus longius pedicellatis. Calyx cœrulescens, villosus, pilis sæpe glanduliferis. Corolla cœrulea.

231. *S. CÆRULEA*, caule herbaceo? erecto, ramis glabris vel patentim pilosis, foliis petiolatis ovatis longe acuminatis basi truncatis rotundatis vel subcordatis glabris, floralibus deciduis, verticillastris 2-6-floris subsecundis, calycibus tubulosis, labio superiore integro dentibusque brevissimis labii inferioris obtusiusculis, corollis calyce subtriplo longioribus, tubo exserto superne ampliato, labiis subæqualibus, superiore extus pubescente erecto, inferioris lobis lateralibus oblongis reflexis, medio integro, connectivis postice minute dentatis deflexis linearibus longitudinaliter connatis, stylo glabro.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Rami nunc glabri vel tenuissime bifariam pubescentes, nunc pilis longis albis patentibus apice sæpe glanduliferis hispidi. Folia supra sæpius pilis brevissimis raris hispidula, subtus glabra vel ad nervos tenuiter pubescentia, inferiora sæpe 4 poll. longa, basi $1\frac{1}{2}$ lata, apice longe angustata, floralia decidua, in speciminibus meis desunt. Racemi 4-6-pollicares, verticillastris paucis sæpius 2- vel 4- rarius 6-floris. Calyces breviter pedicellati, elongato-tubulosi, 10 lin. longi, virides vel subcærulescentes, striati, tenuissime pubescentes, labiis ovatis. Corolla cærulea, sesqui- aut 4-pollicaris. Stamina labium superius æquantia. Stylus vix exsertus, lobis tenuibus, supremo duplo longiore.

232. *S. TUBIFERA* (Cav. Ic. 1. 23. t. 25), caule herbaceo glabriusculo, foliis petiolatis lato-ovatis serrato-crenatis basi rotundato-truncatis vel subcuneatis glabriusculis vel subtus cano-pubescentibus, floralibus deciduis, racemis simplicibus, verticillastris subsexfloris secundis, calycibus subsessilibus tubulosis striatis glabriusculis, labio superiore integro inferiorisque dentibus ovatis acuminatis, corollis calyce 3-4-plo longioribus extus glabris vel pubescentibus, tubo longe exserto æquali subincurvo, labiis abbreviatis, superiore erecto integro, inferiore brevior lobis rotundatis deflexis, medio integro, connectivis postice breviter productis deflexis linearibus subdilatis longitudinaliter connatis, stylo barbato.

S. longiflora. Willd. Spec. Pl. 1. 141.

Hab. in Mexico *Moçino et Sessé!* (*v. s. sp. in herb. Lambert et s. c. in herb. plur.*)

Caulis bipedalis et ultra, erectus vel adscendens, acute tetragonus, purpurascens, glaber vel angulis breviter pubescentibus. Folia fere *S. mexicanæ*, sed tenuiora, basi sæpius parum inæqualia. Racemi semipedales, verticillastris sæpius 4-5-floris, inferioribus pollicem, superioribus semipollicem distantibus. Corollæ violaceæ, 12-15 lin. longæ, tubo vix ampliato. Genitalia breviter exserta.

233. *S. GUARANITICA* (St. Hil. MSS.), fruticosa, ramis patentim pilosis, foliis petiolatis ovatis acutis serratis basi truncato-cordatis rugosissimis hispidis subtus subcano-tomentosis, racemis pluribus simplicibus secundis, verticillastris paucifloris laxis approximatis, calycibus tubulosis glabriusculis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce subtriplo longioribus, tubo longe exserto, labiis elongatis æqualibus, staminibus corolla brevioribus, connectivis postice linearibus deflexis longitudinaliter connatis, stylo subtus barbato.

Hab. in Brasilia: inter frutices prope Santo Anjo, inter Missiones Uruguayensis vulgaris *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Species pulchra. Folia 1-1 $\frac{1}{2}$ -pollicaria. Corollæ 15-16 lineas longæ, intense cæruleæ. Calyces sæpius glabri, interdum pilis glandulosis hispidi.

234. *S. LAMIIFOLIA* (Jacq. Hort. Schœnbr. 3. 37. t. 318), caule fruticoso? erecto subglabro, foliis petiolatis ovatis acuminatis serrato-crenatis basi rotundatis vel cuneatis glabris, floralibus membranaceis ovato-lanceolatis deciduis, racemis elongatis, verticillastris 6-10-floris, calycibus subsessilibus tubulosis, labio superiore integro dentibusque labii inferioris acutis, corolla calyce vix duplo longiore, tubo subæquali, labio superiore erecto extus villosus, inferiore brevior lobis lateralibus oblongis reflexis, medio rotundato integro, staminibus corollam æquantibus, connectivis postice deflexis edentulis obtusis longitudinaliter connatis, stylo barbato.

S. Boosiana. Jacq. Fil. Ecl. 1. 69. t. 47.

S. Boosii. Trott. Obs. Bot. fasc. 2. 59. t. 92.

S. hyemalis. Boose ex Jacq. l. c.

S. cyanea. Fisch. Cat. Hort. Gorenki, 21.

S. thymiflora. Willd. Enum. Suppl. 2.

S. amœna. Sims Bot. Mag. 32. t. 1294. Bot. Repos. 6. t. 446.

S. violacea. Don! Hort. Cant. ed. 4.

S. latifolia. And. Tr. Soc. Arts and Man. 25. 210.

S. azurea, cœrulea, &c. Hortul.

Hab. in ins. St. Vincentii *Anderson! Guilding! &c.* et Trinitatis *Sieber! (h. s. c. et v. s. sp. in herb. Lambert, Hooker, &c.)*

Rami obtuse tetragoni, juniores sæpe tenuiter pubescentes. Folia sæpe 3-4-pollicaria, ovata, apice acuminata, basi sæpius rotundata, glabra vel rarius supra tenuissime pubescentia, subtus nervosa, glaberrima, floralia calycem subæquantia, acuminata, glaberrima, per anthesin reflexa vel decidua. Calyces subsessiles, 8-striati, dentibus ovato-lanceolatis acutiusculis. Corolla cœrulea, tubo æquali breviter exserto, labium superius lana albo-cœrulea villosum, inferius paullo brevius, vix patens. Stamina corollam æquantia. Stylus vix exsertus, lobis subulatis.

The plant now common in continental gardens under the name of *S. lamiifolia* is certainly the *S. Boosiana*. The elder Jacquin has figured the flowers as smaller and more numerous, but his plant does not in any other respect differ from the *S. Boosiana*.

235. *S. AFFINIS* (Cham. et Schlecht. Linnæa, 5. 99), caule fruticoso, ramis glabris, foliis petiolatis ovatis acuminatis serrato-crenatis basi rotundatis glabris vel tenuissime pubescentibus, floralibus ovatis membranaceis deciduis, racemis elongatis subsimplicibus multifloris, verticillastris subapproximatis 6-10-floris secundis, calycibus pedicellatis anguste tubulosis tenuissime pubescentibus, labio superiore integro inferiorisque dentibus longe subulato-acuminatis, corollis calyce subtriplo longioribus, tubo exserto æquali tenui, labiis subæqualibus, genitalibus exsertis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Mexico: prope Jalapa *Schiede et Deppe!* in Cordillera de Guchilapa *Berlandier! (v. s. sp. in herb. Lambert et De Candolle.)*

Flores pallide violacei, ex *Schiede et Deppe*.

236. *S. PURPUREA* (Cav. Ic. 2. 52. t. 166), caule herbaceo erecto glabriusculo, foliis petiolatis ovatis acuminatis serratis basi rotundatis vel cordatis glabris vel tenuissime cano-pubescentibus, floralibus parvis ovatis acuminatis deciduis, racemis densis ramosis, verticillastris multifloris approximatis secundis, calycibus tubulosis albo- vel purpureo-lanatis, labio superiore integro dentibusque labii inferioris subulato-mucronatis, corollis calyce subtriplo longioribus, tubo exserto incurvo,

labio superiore recto pubescente, inferiore æquali lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter subconnatis, stylo utrinque barbato.

S. purpurea. Jacq. Hort. Schænbr. 3. 2. t. 253.

Hab. in Mexico *Moçino et Sessé!* (v. s. sp. in herb. Lambert.)

Habitus *S. polystachyæ*; differt caule glabriore, calycibus secundis dense lanatis, corollis duplo longioribus tubulosis, tubo vix ventricoso.

Species Sectionis VIII incertæ sedis vel dubiæ.

237. *S. CUPHÆFOLIA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 288).

Hab. in sylvis Peruviæ *Humboldt et Bonpland.*

“*S. caule herbaceo bifariam piloso, foliis ovato-ellipticis obtusiusculis basi acutis crenatis glabris margine hirtis, verticillis bifloris valde remotis, calycibus glabris ciliatis.*

“*Caulis sesquipedalis, ramosus, ramis tetragonis purpurascentibus glabris lineis duabus oppositis pilosis instructi. Folia opposita, petiolata, ovato-elliptica, obtusiuscula, crenata, basi acuta et integerrima, utrinque glabra, margine pilis albidis brevibus obsita, 6-9 lin. longa. Petioli 4-6 lin. longi, glabri, margine membranacei. Spicæ terminales, 4-pollicares, verticillatæ, verticillis bifloris valde remotis. Pedunculi pilis patentibus apice glanduliferis obsiti. Pedicelli albo-hirti. Bractææ ovato-lanceolatæ, longe acuminatæ, glabræ, margine ciliatæ, caducæ, calycem subæquant. Calyces tubulosi, sulcato-striati, glabri, bilabiati, labio superiore ovato integro acuto ciliato, inferiore bifido laciniis acutis ciliatis. Corollæ haud suppetunt.*”—*Kunth l. c.*

238. *S. RUFULA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 291).

Hab. in Andibus subfrigidis Quindiuensibus prope los Gallegos regno Novo Granatensi *Humboldt et Bonpland.*

“*S. caule suffruticoso erecto rufo-tomentoso, foliis ovatis acuminatis basi angustatis serratis subtus rufo-pubescentibus, verticillis subsexfloris distantibus, calycibus pilosiusculis.*

“*Caulis suffruticosus, erectus, ramosus, tripedalis, ramis tetragonis rufo-tomentosis. Folia petiolata, ovata, acuminata, basi angustata, argute serrata, basi apiceque integerrima, reticulato-venosa, supra pilis parvis conspersa, subtus rufo-pubescentia, 2-3-pollicaria. Petioli 4-5 lin. longi, canaliculati, rufo-tomentosi. Spicæ terminales aut axillares, solitariae, 3-4-pollicares, verticillatæ, verticillis 6-10-floris distantibus. Bractææ ovatæ, acuminato-subulatæ, pubescentes, ciliatæ. Calyx bilabiatus, pilis sparsis obsitus, labio superiore integro acuto, inferiore bifido. Corolla purpurascens, labio superiore pubescente. Genitalia inclusa.*”—*Kunth l. c.*

239. *S. TOLIMENSIS* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 292).

Hab. in monte Quindiu inter Ibaguæ et Tolimæ metam *Humboldt et Bonpland.*

“*S. caule fruticoso erecto rufo-pubescente, foliis ovato-lanceolatis utrinque acutis crenato-serratis subtus dense pubescentibus, verticillis subsexfloris distantibus, calycibus hirtis.*

“*Caulis fruticosus, tripedalis et altior, ramis tetragonis dense rufo-pubescentibus. Folia opposita, petiolata, ovato-lanceolata, utrinque acuta, inæqualiter crenato-serrata, reticulato-venosa, supra glabriuscula, pilis minutissimis conspersa, subtus dense rufo-pubescentia, 2-3-pollicaria. Petiolus subsemipollicaris, canaliculatus, rufo pubescens. Spicæ terminales et axillares, 3-4-pollicares, verticillatæ, verticillis*

subsexfloris distantibus. Bracteæ ovatæ, acutæ, serrulatæ, subtus pubescentes. Calyx bilabiatus, hirtus, labio superiore ovato integro acuto, inferiore bifido. Corolla labio superiore recto externe pubescente. Stamina inclusa. Præcedenti (*S. rufulæ*) similis foliorum forma, tamen satis distincta."

240. *S. DISCOLOR* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 294. t. 146).

S. Bonplandiana. Dietr. et Gærtn. Lexic. Nachtr. 7. 403.

Hab. in montibus obumbratis Andium Peruvianorum in convalli amœna fluvii Guancabambæ *Humboldt et Bonpland*.

"*S. caule fruticoso erecto cano-tomentoso, ramis junioribus glutinosis, foliis ovato-lanceolatis acutiusculis basi rotundatis integerrimis supra glabris subtus niveo-tomentosis, verticillis suboctofloris distantibus, bracteis caducis, calycibus albo-tomentosis.*

"*Frutex graveolens, glutinosus, omnibus partibus valde amarus, 2-3-pedalis. Caulis erectus, ramosus, ramis tetragonis pulverulento-tomentosis incanis, junioribus viridibus et glutinosis. Folia opposita, petiolata, ovato-lanceolata, acutiuscula, basi rotundata, integerrima, subcoriacea, supra glabra, subtus niveo-tomentosa, bipollicaria. Petioli subsemipollicares, albo-tomentosi. Spicæ terminales, verticillatæ, 8-9-pollicares, verticillis suboctofloris distantibus. Calyx campanulatus, striatus, albo-tomentosus, bilabiatus, labio superiore ovato acuto, inferiore bidentato dentibus acutis. Corolla calyce duplo longior, nitido-violacea, labio superiore recto obtuso, brevior inferiore tripartito, lacinia intermedia majore biloba, ex Bonpl. Stamina inclusa. Stylus paulo exsertus. Corollas haud vidi.*"—*Kunth l. c.*

241. *S. ACUTIFOLIA* (Ruiz et Pav. Fl. Per. et Chil. 1. 24. t. 38. f. b).

Hab. copiose in Cheuchin Peruviae pratis et humidis *Ruiz et Pavon*.

"*S. foliis cordatis acutis obtuse serratis, spicis verticillatis.*

"*Planta orgyalis, fruticosa. Caulis erectus, obtuse tetragonus, ramosus. Ramî oppositi, erecti, tomentosi, obtuse tetragoni, sulcati. Folia petiolata, cordata, acuta, obtuse serrata, aliquando duplicato-serrata, serraturis approximatis, supra rugosa, utrinque tomentosa, venosissima. Spicæ terminales, verticillatæ. Verticilli 6-12-flori, approximati. Flores breviter pedunculati, secundi. Bracteæ oppositæ, ovato-lanceolatæ, acutæ, carinatæ, caducæ, tomentosæ. Calyx tomentosus, intus scaber, bilabiatus, æqualis, labio superiore integro, inferiore bifido. Corolla purpurea, calyce duplo longior. Stamina corollæ longitudine. Stigma bifidum, villosum, exsertum. Vernacule *Socconcha*."*—*Ruiz et Pavon l. c.*

242. *S. PAUCIFLORA* (Humb. et Kunth Nov. Gen. et Spec. Amer. 2. 303).

Hab. in calidis Novæ Hispaniæ *Humboldt et Bonpland*.

"*S. caule suffruticoso erecto ramisque hirtis, foliis ovatis obtusis cordatis crenatis subtus tenuissime albo-tomentosis, verticillis bifloris distantibus, calycibus pubescentibus.*

"*Suffrutex sesquipedalis et altior, ramosus, ramis tetragonis quadrisulcatis purpureis hirtis. Folia opposita, petiolata, ovata, obtusa, cordata, crenata, crassiuscula, reticulato-venosa, rugulosa, supra viridia et pubescentia, subtus tenuissime albo-tomentosa, pollicaria et longiora. Petioli subpollicares, albo-tomentosi. Spicæ terminales, bipollicares, verticillatæ, verticillis bifloris distantibus. Bracteæ oblongæ, calyce breviores, caducæ. Calyx tubulosus, bilabiatus, striatus, pubescens, labio superiore acuto, inferiore bifido laciniis acuminatis. Corolla purpurea, labio superiore hirsuto, ex Bonpl. Stamina et pistillum exserta. Descriptio ex schedis Willdenowii.*"—*Kunth l. c.*

SECTIO IX. ECHINOSPHACE.

Folia floralia et bracteæ imbricatæ spinosæ. Calyx ovatus, labio superiore tridentato, inferiore brevior bifido dentibus omnibus spinosis. Corollæ tubus intus piloso-annulatus, labium superius rectum emarginato-bifidum, inferioris lobi laterales parvi, medio maximo lacero-fimbriato. Connectiva medio affixa, remota, postice subporrecta, loculum subconformem polliniferum ferentia.—Herba Californica. Flores in verticillastris densissimis multifloris bracteis suffultis glomerati.

243. S. CARDUACEA, caule herbaceo erecto subsimplici albo-lanato, foliis petiolatis oblongis pinnatifidis subtus laxè lanatis, lobis ovatis sinuato-dentatis, dentibus spinoso-acuminatis, floralibus bracteisque imbricatis spinosissimis, verticillastris remotis dense multifloris, calycibus inflatis lanatis, labio superiore elongato tridentato, inferiore bifido dentibus omnibus spinosis, corollæ tubo subincluso, labii inferioris lobo medio fimbriato, connectivis postice liberis antheræ loculum subcassum ferentibus.

Hab. in California Douglas! (h. s. sp. e Mus. Soc. Hort. Lond.)

Species distinctissima, habitu *Morinæ Persicæ* vel *Cardui*. Caulis 1-2-pedalis, uti foliorum pagina inferior et calyces lana longa laxa alba vestitus. Folia inferiora *Cardui tenuiflori*, floralia et bracteæ omnino *Morinæ Persicæ*. Verticillastri densissimi, demum 2 poll. diametro. Calyces demum fere pollicem longi. Dentes labii superioris patentissimi, inferioris breviores, erecti. Corollæ tubus dentes calycinos subæquans, annulo interno obliquo piloso. Labia semipollicaria, subæqualia, basi angustata, superius subplanum semibifidum lobis oblongis obtusis, inferioris lobi laterales breves, oblongi, infimus elongatus, dilatatus, eleganter et profunde lacerus, lobis basi angustatis apice dilatatis. Genitalia subexserta. Connectiva cum filamento subcontinua, antice adscendentia, antheræ loculum fertile adnatum ferentia, postice filiformia, loculo minore subcasso, uti superior croceo. Stylus filiformis, apice æqualiter bifidus. Achenia lata, triquetra.

SECTIO X. PYCNOSPHACE.

Folia floralia et bracteæ imbricatæ muticæ. Calyx ovatus, labio superiore tridentato, inferiore bifido dentibus omnibus subulatis. Corollæ tubus intus piloso-annulatus, labium superius rectum, inferioris lobus medius integer vel emarginatus. Connectiva medio affixa, postice remota, porrecta, loculum subconformem polliniferum ferentia.—Herba Californica. Flores in verticillastris multifloris densissime glomerati.

244. S. COLUMBARIÆ, herbacea erecta parum ramosa, foliis profunde pinnatifidis rugosis glabriusculis, lobis oblongo-linearibus obtusis eroso-dentatis incisive, extimo vix latiore, floralibus bractæformibus, verticillastris solitariis binisve dense multifloris hemisphæricis, bracteis lato-ovatis membranaceis acuminatis imbricatis, calycis ovati pubescentis labio superiore elongato concavo breviter tridentato, inferiore brevior bifido, corollæ tubo incluso, labii inferioris lobo medio crenulato, connectivis postice liberis subporrectis antheræ loculum cassum ferentibus.

Hab. in California Douglas! (h. s. sp. e Mus. Soc. Hort. Lond.)

Habitus fere *Scabiosæ Columbariæ*. Caulis semipedalis vel vix pedalis, pubescens, sub verticillastro nudus. Folia in parte inferiore caulis fere *S. clandestinæ*. Verticillastri a foliis caulinis longe remoti, 8-10 lin. diametro, capitulæformes, cærulescentes. Bracteæ numerosæ, latissimæ. Corolla calyce parum longior, magnitudine corollæ *S. niloticæ*.

Species Sectionis X? dubia.

245. *S. LEONIA*.

Leonia salvifolia *Llav. et Lex. Nov. Veg. Descr. fasc. 2. 6.*

Hab. in Mexico: in præsidio de Sancta Rosa ad Chignaguam *La Llave et Lexarza*.

"Herba pedalis, ramosa, pubescens, caule tetragono, ramis brachiatis. Folia cordata, crenata, rugosa, pubescentia, petiolata. Flores eleganter rubri, per verticillos 5-6 florum pedunculatos dispositi et bracteis ovato-acuminatis sessilibusque instructi. Perianthium striatum bilabiatum, labio superiore truncato tridentato ascendente, inferiore bidentato dentibus acutissimis longioribus. Corolla ringens, tubo brevissimo, fauce sensim ampliata striata subtrigona, rictu subrotunda, labio inferiore trifido, lacinia intermedia majore emarginata, superiore erecto carinato emarginato brevior. Stamina 2 faucibus corollæ ad latus labii inferioris inserta, superne furcata, antheris 4 oblongis, quarum singula in qualibet divisione filamentum. Ovarium superum tetragonum, stylo filiformi corolla longiore, stigmate trifido, lacinia inferiore majore. Semina 4, oblonga."—*Llave et Lex. l. c.*

This species is evidently a *Salvia*, belonging to either *Pycnosphace* or *Heterosphace*. The expression "stigmate trifido," in the above description, is surely a misprint.

SECTIO XI. HETEROSPFACE.

Heterosphace. Benth. in Hook. Bot. Misc. 3.

Folia floralia decidua. Calyx tubulosus, labio superiore truncato tridentato. Corollæ tubus intus piloso-annulatus, labium superius breve rectum, inferioris lobi laterales parvi subpatentes. Connectiva medio affixa, postice remota, porrecta, loculum subconformem polliniferum ferentia.—*Herbæ Mediterraneæ, Africanæ, Asiaticæ, et Boreali-Americanæ, floribus racemosis, verticillastris laxis paucifloris, calycibus sæpe coloratis.*

246. *S. NILOTICA* (Vahl! Enum. 1. 258), caule herbaceo erecto villosa, foliis inferioribus petiolatis ovatis crenatis erosis vel lyratis basi subangustatis, superioribus lato-cordiformibus subsessilibus, omnibus utrinque viridibus rugosis villosis, floralibus ovato-lanceolatis acutissimis calyce subbrevioribus, racemis abbreviatis ramosis, verticillastris 6-10-floris distinctis, calycibus ovato-campanulatis pubescentibus, labio superiore truncato dentibus acutissimis divergentibus, inferioris dentibus lanceolatis acutissimis, corollis calyce dimidio longioribus, tubo subæquali intus nudo, labio superiore recto, inferiore patente lobis subreflexis, medio emarginato, connectivis postice liberis porrectis antheræ loculum cassum ferentibus.

Horminum napifolium. Mill. Dict. n. 4?

Horminum niloticum. Mærch. Meth.

S. applanata. Willd. Enum. Hort. Berol. Suppl. 3.

- *S. nilotica.* Murr. Comm. Gott. 1778. 98. t. 2. Jacq. Hort. Vind. 3. 48. t. 92.
 - *S. intermedia.* Schult. Obs. Bot. 9.
 - *S. napæfolia.* Auct. plur. et Hortul. non Jacq.
 - *S. abyssinica.* Jacq. ! Ic. rar. 1. 2. t. 6. non Linn. herb. an Linn. Fil. Suppl. 81 ? *

S. nubia. Murr. Comm. Gott. 1770. 90. t. 3. Vahl Enum. 1. 259. an Ait. ? *

Hab. in Ægypto Vahl et Auct. (h. s. c.)

Caulis 2-3-pedalis, acute tetragonus, pilis subviscosis plus minusve villosus. Folia in var. α 2-3-pollicaria, inferiora ovalia, suprema lato-ovata basi truncata vel cordata, omnia breviter crenata; in var. β majora, subincisa, basi inciso-pinnatifida. Racemi juniores densi, demum laxi, paniculato-ramosi. Folia floralia dentesque calycini cærulescentes, acutissimi, dente medio labii superioris sæpe minimo. Corollæ pallide cæruleæ.

247. *S. SYLVICOLA* (Burch. ! Cat. Geogr. n. 6052), caule herbaceo adscendente villosus, foliis breviter petiolatis lato-ovatis acutis dentatis basi cordatis sublobatis utrinque villosis, floralibus ovatis acuminatis calyce brevioribus, racemis simplicibus, verticillastris secundis laxis 6-floris distantibus, calycibus tubuloso-campanulatis villosis, labio superiore truncato tridentato, inferiore bifido dentibus lanceolatis, omnibus setaceo-acuminatis, corollis calyce duplo longioribus, tubo tenui exserto, labio superiore recto emarginato, inferiore longiore patente, lobo medio emarginato, connectivis postice liberis antheræ loculum alterum ferentibus.

Hab. ad Caput Bonæ Spei Burchell ! (v. s. sp. in herb. Burchell et Hooker.)

Caules elongati, 2-pedales et ultra, subsimplices, tetragoni, villosi. Folia fere *S. niloticæ*, sed omnia sæpius petiolata et basi lobis utrinque 1-2 instructa, villosiora et subtus subcanescentia. Racemus florens 3-4-pollicaris, fructifer elongatus, verticillastris plus pollice distantibus. Axis, pedicelli et calyces dense molliter villosi. Folia floralia calyce, bractæ pedicello breviora. Corolla fere *S. auritæ*, sed dimidio minor.

248. *S. TENUIFOLIA* (Burch. ! Cat. Geogr. n. 2981), caule herbaceo erecto basi ramoso villosus, foliis longe petiolatis ovato-rotundatis obtusis dentatis subincisisve basi subcordatis truncatis vel subhastatis lobatisve utrinque villosis, floralibus pedicello subbrevioribus ovato-lanceolatis acutis, racemis simplicibus, verticillastris subsecundis 2-6-floris remotis, calycibus pedicellatis tubulosis coloratis striatis pubescentibus, labio superiore ovato subtruncato dentibus lanceolatis acutissimis, corollis calyce subduplo longioribus, tubo exserto æquali, labio superiore erecto brevissimo, inferiore triplo longiore lobis rotundatis patentibus, medio emarginato, connectivis postice liberis antheræ loculum cassum ferentibus.

Hab. ad Caput Bonæ Spei Burchell ! (h. s. c. e hort. Berol. et v. s. sp. in herb. Burch.)

Herba pusilla, basi foliosa et ramosa, cum racemo semipedalis vel vix pedalis. Petiolus lamina foliorum sæpius longior. Lamina semipollicaris vel vix pollicaris, nunc fere *Saxifragæ rotundifoliæ*, nunc ut in *S. sylvicolæ* sublyrata. Racemus laxus. Verticillastri semipollicem vel demum pollicem remoti. Pedicellus 2-3 lin. longus. Calyx nutans, 4-5-linearis, tubulosus, sed apice parum ampliatus, dentibus setaceo-acuminatis. Corolla cærulea, *S. sylvicolæ*, cui hæc species affinis est, sed foliis parvis longius petiolatis, &c. differt. Genitalia exserta.

* Confer supra *S. nubia*, p. 242.

Ex descriptione Thunbergiana affinis est *S. obtusata*. Sed in hac caulis fere glaber, et folia supra glabra subtus venis pilosa. Planta nostra tota pilis mollibus subviscosis villosa.

249. *S. AURITA* (Thunb. Prod. Fl. Cap. 96), caule herbaceo erecto villosa, foliis petiolatis lyrato-pinnatifidis vel pinnatisectis segmentis eroso-dentatis subtus venosis cano-pubescentibus, floralibus minutis ovatis acutis, racemis simplicibus, verticillastris 6-10-floris distantibus secundis, calycibus sessilibus tubulosis elongatis coloratis striatis pubescentibus, labio superiore truncato dentibus setaceis erectis, inferioris dentibus lanceolatis acutissimis, corollis calyce plus duplo longioribus, tubo tenui longe exserto æquali, labio superiore erecto brevissimo, inferiore triplo longiore lobis rotundatis deflexo-patentibus, medio emarginato, connectivis postice liberis antheræ loculum cassum ferentibus.

Hab. ad Caput Bonæ Spei *Oldenburg! Burchell! &c.* (v. s. sp. in herb. Banks, Hooker, Burchell, &c.)

Folia fere *S. scabræ*, sed majora. Caulis subsimplex, erectus vel adscendens. Calyces longe cylindrici, semipollicares, apice purpureo-cærulei. Corollæ magnitudine et forma *S. lyratæ*, sed tenuiores.

This plant has been determined as the *S. aurita* in the Banksian herbarium, and answers Thunberg's description in every respect excepting the "flores minuti," which certainly the specimens before me have not; but as he afterwards adds that the calyces are "corolla duplo breviores," there might perhaps have been some mistake in copying or printing "minuti, bracteati," for "minute bracteati," which is mostly the case in the Salvias of this section.

250. *S. SCABRA* (Thunb. Prod. Fl. Cap. 97), caule herbaceo erecto paniculato ramoso, foliis lyrato-pinnatifidis rugosis scabris margine eroso-crispis subtus venosis canescentibus, floralibus minutis ovato-lanceolatis, racemis elongatis subramosis, verticillastris 6-floris distantibus, calycibus campanulatis pubescentibus, labio superiore truncato dentibus setaceis erectis, inferioris dentibus lanceolatis acutis, corollis calyce duplo longioribus, tubo subæquali intus annulato, labio superiore erecto, inferioris lobis reflexo-patentibus, medio emarginato, connectivis postice liberis antheræ loculum cassum ferentibus.

Hab. ad Caput Bonæ Spei *F. Masson! Burchell! Thom! &c.* (v. s. sp. in herb. Banks, Hooker, et Burchell.)

Caulis rigidus, scaber, pubescens, bipedalis. Folia profundius incisa quam in *S. runcinata*, lobo extimo maximo, omnibus rigidis rugoso-crispis. Racemi fere pedales, verticillastris numerosis 6-floris vel ultra. Corollæ *S. runcinatæ*, sed paullo majores. An revera ab illa distincta?

251. *S. RUNCINATA* (Linn. Mant. 89), caule herbaceo erecto paniculato ramoso, foliis runcinato-pinnatifidis rugosis supra hispidulis lobis inciso-crenatis, terminali majore, floralibus minutis ovato-lanceolatis acutis, racemis subramosis paucifloris, verticillastris 2-6-floris remotis, calycibus ovatis pubescentibus, labio superiore truncato dentibus minutis setaceis erectis, inferioris dentibus lanceolatis acutis, corollis calyce duplo longioribus, tubo subæquali intus annulato, labio superiore erecto, inferioris lobis reflexo-patentibus, medio emarginato, connectivis postice liberis subporrectis antheræ loculum cassum ferentibus.

S. runcinata. Jacq. Hort. Schœnbr. 1. 5. t. 8.*

S. erosa. Desf. Cat. Hort. Par. 68. Poir. Dict. Suppl. 5. 49.†

Hab. ad Caput Bonæ Spei Thunberg. (h. s. c.)

Herba humilis, sæpius ramosissima, cano-pubescens. Folia pollicaria, primordialia lyrata, lobo terminali obovato obtusiusculo, sinuato-dentata, posteriora præsertim superiora, ut in varietatibus nonnullis *S. clandestinæ* pinnatifida, omnia supra pilis adpressis hispidula, subtus glabriora nervis pubescentibus, vix rugosa, acutiuscula, floralia vix lineam longa. Racemi 3-5-pollicares, verticillastris vix 5-6 subsecundis. Calyces breviter pedicellati, lineas 2-3 longi, ovato-campanulati, nervis 5 primariis validioribus, supra plani vel inter nervos subconcavi; dentes labii superioris remoti, erecti vel divergentes nec conniventes. Corolla cœrulea. Annulus intra tubum pilosus. Genitalia breviter exserta.

252. *S. STENOPHYLLA* (Burch. ! Cat. Geogr. n. 1881), herbacea erecta glabriuscula, foliis petiolatis oblongo-lanceolatis linearibusve runcinato-subpinnatifidis rugosis, floralibus minutis ovato-lanceolatis acutis, racemis subramosis, verticillastris sub-6-floris remotis, calycibus ovatis glabris, labio superiore truncato brevissime tridentato, inferioris dentibus lanceolatis acutiusculis, omnibus muticis, corollis calyce duplo longioribus, tubo subæquali vix exserto intus annulato, labiis brevibus subæqualibus, connectivis postice liberis subporrectis antheræ loculum cassum ferentibus.

Hab. ad Caput Bonæ Spei Burchell ! (v. s. sp. in herb. Burchell.)

Affinis *S. runcinatæ*, sed glabritie, caule elatiori minus ramoso, foliis elongatis angustatis, racemis gracilibus, et dentibus calycinis brevioribus differt.

253. *S. REPENS* (Burch. ! Cat. Geogr. n. 2830), herbacea glaberrima, caule basi repente folioso, ramis floriferis adscendentibus subnudis, foliis subradicalibus petiolatis elongatis runcinato-pinnatifidis vix rugosis, floralibus ovato-lanceolatis acutis calyce brevioribus, racemo subsimplici, verticillastris subsecundis subsexfloris remotis, calycibus ovatis, labio superiore truncato tridentato, inferioris dentibus lanceolatis, omnibus setaceo-acuminatis.

Hab. ad Caput Bonæ Spei Burchell ! (v. s. sp. in herb. Burchell.)

Folia fere *S. stenophyllæ*, sed characteribus datis abunde distinguitur. Corollas apertas non vidi, sed ex alabastro videntur corollis *S. stenophyllæ* paullo majores.

254. *S. LYRATA* (Linn. ! Spec. 33), caule herbaceo erecto subsimplici piloso, foliis radicalibus lyratis eroso-dentatis utrinque hispidulis, caulinis paucis oblongo-lanceolatis basi longe angustatis, floralibus oblongo-linearibus calyce subbrevioribus, racemis subsimplicibus, verticillastris 6-floris laxis distantibus, calycibus tubuloso-campanulatis nutantibus pilosis, labio superiore dentibus brevibus distantibus, inferioris dentibus lanceolatis acutis, corollis calyce subtriplo longioribus, tubo longe exserto superne ampliato, labio superiore brevi recto, inferiore triplo longiore lobis rotundatis patentibus, medio latissimo emarginato, connectivis postice liberis porrectis antheræ loculum cassum ferentibus.

* Jacquin's figure represents rather the habit of *S. scabra*, but all the drawings of his works are made from remarkably large specimens; and the true *S. runcinata* is the only one of the two in our gardens, if the two species are really distinct.

† See above, p 241, note.

Melissa atro-rubens bugulæfolio. *Dill. Hort. Elth.* 219. t. 175. f. 216.

Horminum virginicum. *Linn. Spec.* 832.

Horminum lyratum. *Mill. Dict. n.* 2.

Cunila lyrata. *Schrank in Syll. Pl. Soc. Ratisb.* 2. 57.

Hab. in America septentrionali: in Philadelphia *Drummond!* Virginia *Vahl*, Carolina *Delile!* *Wray!* &c., in Carolina et Georgia frequentissima *Elliott*, in Novo Aureliano *Drummond!* (*h. s. sp.*)

Radix crassus, perennis. Caulis 8-9 poll. vel in cultis sesquipedem v. ultra altus. Folia radicalia patula, 2-3-pollicaria, sinuato-obovata vel sæpius lyrata, petiolo subulato; caulina sæpius 2 vel 4. Racemus simplex vel parce ramosus. Calyces pedicellati, pilis longis patentibus ciliati, colorati. Corolla purpureo-violacea, lin. 9-10 vel ultra longa, tubus ad faucem valde ampliatus, labium superius brevissimum, emarginatum nec fornicatum. Styli lobus inferior longissimus, breviter exsertus.

255. *S. OBOVATA* (*Elliott Bot. S. Carol. et Georg.* 1. 33), caule herbaceo erecto pilosiusculo, foliis lato-obovatis integris sinuatis glabriusculis basi longe angustatis, floralibus ovatis calyce subbrevioribus, racemis subsimplicibus, verticillastris 6-floris densis remotis, calycibus tubuloso-campanulatis nutantibus pilosis, labio superiore truncato dentibus minimis distantibus, inferioris dentibus lanceolatis acutis, corollis calyce subtriplo longioribus, tubo longe exserto superne ampliato, labio superiore brevi recto, inferiore triplo longiore patente, connectivis postice liberis porrectis antheræ loculum cassum ferentibus.

Hab. in America septentrionali: in Georgia ad flumen Oakmulgee *Lyon (Elliott)*, ad Novum Aurelianum *Drummond!* Augusta *Wray!* (*h. s. sp. a cl. Drummond.*)

Affinis *S. lyratæ*, et vix foliis omnibus lato-obovatis integris crassioribus glabrioribusque calycibus brevius pedicellatis et dentibus plerumque brevioribus et minus acutis differt.

256. *S. ACAULIS* (*Vahl! Enum.* 1. 257), caule herbaceo erecto subsimplici piloso, foliis obovatis integris sinuatis utrinque hispidulis basi longe angustatis, floralibus ovatis calyce subbrevioribus, racemis subsimplicibus, verticillastris sexfloris remotis, calycibus tubuloso-campanulatis nutantibus pilosis, labio superiore truncato dentibus minimis distantibus, inferioris dentibus lanceolatis acutis, corollis calyce plus duplo longioribus, tubo tenui longe exserto superne ampliato, labio superiore brevi recto, inferiore longiore patente, connectivis postice liberis porrectis antheræ loculum cassum ferentibus.

S. ocymoides. *Roxb. Benth. in Wall. Pl. As. Rar.* 1. 68.

Hab. in India orientali? *Rottler!* (*v. s. sp. in herb. Vahl, Mus. Angl. Ind. et Wight.*)

A *S. obovata* differt corollis minoribus tenuioribus et foliis angustioribus.

All the specimens I have seen of this plant are originally from Dr. Rottler's herbarium; and from their great resemblance to the *S. obovata*, I cannot help suspecting that they are mere garden specimens of that plant, raised in India from American seeds; but from the imperfect state of the individuals before me, I cannot be certain enough of the identity of the two species to join them.

257. *S. JAPONICA* (*Thunb. Fl. Jap.* 22. t. 5), caule herbaceo erecto ramoso glabro, foliis petiolatis pinnatisectis segmentis ovatis acuminatis basi angustatis inciso-dentatis vel pinnatifidis glabris, flo-

ralibus lanceolatis calyce brevioribus, racemis subsimplicibus, verticillastris subsexfloris distinctis, calycibus tubuloso-campanulatis glabris striatis, labio superiore integro ovato obtuso, inferioris dentibus acutis, corollis calyce duplo longioribus, tubo vix exserto æquali intus piloso annulato, labio superiore recto, inferiore patente lobis rotundatis, medio emarginato, genitalibus exsertis, connectivis postice liberis porrectis antheriferis.

Hab. in Japonia *Thunberg*. (v. s. sp. in herb. *Banks et Lambert*.)

Herba annua, glabra, elegantissima. Caulis obtuse tetragonus, sulcatus. Folia 3-4-pollicaria vel ultra, superiora simpliciter, inferiora bi-pinnatisecta. Petioli ciliati. Segmenta sæpius petiolulata, 2-3-juga vel parte extima sessili terminali in petiolulum angustata, omnia profunde dentata, utrinque glabra vel subtus ad nervos tenuiter pubescentia, floralia parva, decidua. Racemi 4-5-pollicares, multiflori, basi sæpe subramosi. Verticillastri subsecundi, inferiores semipollicem distantes. Flores magnitudine floris *S. verticillata*, sed calyx brevior. Corolla cœrulea(?), extus subglabra. Stylus glaber, apice breviter et subæqualiter bifidus.

Specimina in herbariis Banksiano et Lambertiano e Japonia allata omnino descriptionem *Thunbergianam* referunt, præter calyces in his glabri labio superiore integro, apud *Thunbergium* hispidi et quinquedentati sunt. An ab illo accurate observati?

Species Sectionis XI non satis notæ.

258. *S. TRIANGULARIS* (Thunb. Prod. Fl. Cap. 96).

Hab. ad Caput Bonæ Spei *Thunberg*.

“*S. villosa-hispida, foliis triangularibus dentatis, ramis patulis.*

“Caulis herbaceus, erectus, omnibus partibus hirsutus pilis albis, bipedalis. Rami et ramuli oppositi, divaricati, flexuoso-erecti. Folia opposita, petiolata, cordata, triangulari-spathulata, patentia, vix pollicaria. Petioli longitudine folii. Florum verticilli remoti, pedunculati. Pedunculi reflexi. Calyces angulati, aristati, corolla paullo breviores. Distinguitur facile a *S. aurita* l. petiolis absque auriculis, 2. caule ramoso.”—*Thunb. ex Rœm. et Schult. Syst. Mant.* 1. 187.

259. *S. OBTUSATA* (Thunb. Prodr. Fl. Cap. 97).

Hab. ad Caput Bonæ Spei *Thunberg*.

“*S. villosa, foliis ovatis incisis crenatis, ramis flexuosis.*

“Caulis herbaceus, parum villosus, debilis, erectiusculus, simplex vel ramosus, pedalis. Rami oppositi, cauli similes, flexuoso-erecti. Folia opposita, petiolata, obtusa, incisa et raro subhastata, supra glabra, subtus venis pilosa, margine ciliata, vix pollicaria. Petioli ciliati, longitudine folii. Flores verticillato-oppositi, bini, pedunculati. Pedunculi erecti, deflorati, reflexi. Calyces angustati, scabri, aristati, corolla duplo breviores.”—*Thunb. ex Rœm. et Schult. Syst. Mant.* 1. 213.

260. *S. CLAYTONI* (Elliott Bot. S. Carol. et Georg. 1. 32).

Hab. in Carolina meridionali: in pascuis aridis arenosis circa Beaufort abunde *Elliott*.

“*S. foliis cordato-ovatis sinuatis dentatis rugosis, calycis dentibus labii superioris conniventibus.*”—*Elliott l. c.*

Radix crassus, fere tuberosus, perennis. Caulis herbaceus, erectus, fere pedalis. Folia ovata et cordata, lanceolata, pinnatifida, segmentis dentatis, rugosa, ad venas et margine pubescentia. Verticillastri 6-flori. Folia floralia cordato-ovata, acuminata, dentata, pubescentia. Calyx subcampanulatus, bilabiatus, in venis et margine hispidus. Labium superius tridentatum dentibus conniventibus, inferius longius bifidum segmentis acuminatis mucronatis. Connectivum utrinque antheriferum. Antheræ fere nigræ.—*Descr. ex Elliott l. c.*

A *S. lyrata* certe ut Elliott l. c. distinctissima dentibus calycinis ut in *Plethiosphaceis* conniventibus; sed ab hac sectione connectivis utrinque antheriferis longe diversa.

Species valde dubia: an rite descripta?

SECTIO XII. NOTIOSPHACE.

Notiosphace. *Benth. in Hook. Bot. Misc. 3. 374.*

Folia floralia et bracteæ minutæ. Calyx ovatus, labio superiore integro vel brevissime tridentato dentibus conniventibus, inferiore bifido. Corolla minima, tubo incluso, labio superiore recto, inferiore subpatente. Connectiva medio affixa, postice remota, porrecta, loculum subconformem fertilem ferentia.

261. *S. PLEBEIA* (Br.! *Prod. 501*), caule herbaceo erecto, ramoso pubescente, foliis petiolatis oblongis rugosis, verticillastris laxis sub-6-floris racemosis, racemis fastigiato-paniculatis, calycibus campanulatis, labio superiore integerrimo dentibusque labii inferioris obtusis, corollis calyce vix longioribus, labio superiore recto fornicato, connectivis postice adscendentibus liberis antheræ loculum cassum ferentibus.

S. brachiata. Roxb. ! Hort. Beng. 4. Fl. Ind. 1. 146.

S. parviflora. Roxb. Hort. Beng. 4 ?

Ocimum fastigiatum. Roth. Nov. Pl. Spec. 277.

Lumnitzera fastigiata. Spreng. Syst. 2. 687.

Hab. in Asia tropica et Australasia: in humidis Indiæ orientalis *Roxburgh !* in Napalia, Oude, Hindustania et Silhet *Wallich !* in Deyra Dhoon et ad ripas fluminis Jumna vulgaris *Royle !* in provincia Tokeen juxta Nyan-ke-hyen Chinæ *Reeves !* in Nova Hollandia tropica *R. Brown !* (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Royle.*)

Caulis bi-tripedalis, brachiato-ramosus, obtuse tetragonus, pilis brevissimis reflexis cano-pubescent. Folia 2-3-pollicaria, acuta, crenata, basi angustata, rugosa, tenuiter pubescentia, floralia lanceolata, acuta, verticillastro breviora. Racemi laxi, ramosissimi. Panicula dense fastigiata. Flores minuti. Calyx pedicellatus, declinatus, ovato-campanulatus, pubescens, 13-nervis. Corolla breviter exserta, labio superiore brevi recto subfornicato emarginato, inferiore subpatente, lobo medio longiore emarginato. Stamina superiora nulla, inferiora corolla breviora, connectivis liberis antice loculum fertilem ovato-oblongum medio affixum ferentibus, postice sub loculo casso incrassatis, ad insertionem filamentorum edentulis. Stylus corolla brevior, brevissime bifidus. Achenia ovato-rotundata, læviuscula, badia.

262. ? *S. ÆGYPTIACA* (Linn.! *Spec. 33*), caule procumbente humili ramosissimo cano-pubescente, foliis caulinis parvis remotis sessilibus lanceolato-linearibus acutis dentatis vel infimis oblongis basi in petiolum angustatis, floralibus minutis, racemis elongatis subramosis, verticillastris remotis subbifloris, calycis ovati pubescentis labio superiore brevissime tridentato dentibus conniventibus, inferiore bifido dentibus lanceolatis subulato-acuminatis, corollis vix calycem excedentibus, connectivis postice adscendentibus liberis loculum cassum ferentibus.

S. ægyptiaca. Jacq. Hort. Vind. 2. 49. t. 108.

Melissa perennis. Forsk. Fl. Ægypt. Arab. 108.

Thymus hirtus. Viv. Fl. Lib. Spec. 30. t. 14. f. 1.

July 1833.

s s

Hab. in Africæ ora septentrionali et occidentali: in Ægypto *Forsköl!* Libya *Viviani*, ins. Fortunatis *Masson!* Canariensibus! Capitis Viridis *Forbes!* (*h. s. sp.*)

Planta semipedalis vel vix 9-pollicaris, basi sublignosa. Rami et folia pubescentia tenui canescentes. Folia vix semipollicaria, superiora minora. Verticillastri pauci, plus pollice distantes. Flores vix plus quam lineam longi. Calyces fructiferi parum aucti, villosiusculi, labio superiore ut in *Plethiosphaceis* orbiculato supra subconcavo, dentibus minimus conniventibus. Corollæ et stamina *S. plebeia*. Stylus breviter exsertus, glaber, lobis subulatis.

SECTIO XIII. GYMNOSPHERE.

Gymnosphere. *Benth. in Hook. Bot. Misc. 3. 374.*

Calyx ovato-tubulosus, labio superiore integro recurvo, inferiore bifido. Corollæ tubus brevis, amplus, intus annulatus? labia brevia, superius erectum, inferioris lobi patentes. Connectiva postice remota, deflexa, filiformia, acuta. Filamenta erecta, cum connectivo subcontinua.—An genus proprium?

263. *S. SAXICOLA* (Wall. Benth. in Wall. Pl. As. Rar. 1. 68), caule cæspitoso basi ramoso, ramis floriferis erectis subnudis glabris, foliis radicalibus infimisque rotundatis cordatis crenatis glabris, caulinis paucissimis ovato-lanceolatis inciso-dentatis, floralibus minutis ovatis, racemis subramosis, verticillastris laxis distinctis vel supremis spicatis, calycibus tubuloso-campanulatis nutantibus glabris, labio superiore ovato integro recurvo-patente, inferioris dentibus lanceolatis acutissimis, corollis calycem vix superantibus, tubo incluso ampliato intus piloso annulato, labiis abbreviatis, superiore erecto, inferioris lobis reflexo-patentibus, antheris fertilibus omnino adnatis, connectivis postice abbreviatis subulatis deflexis liberis.

Hab. in India orientali: in Napalia *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caules e basi crasso radicante plures, semi- ad sesquipedales, simplices vel sub racemo ramorum pare unico, basi glabri; axis racemi molliter villosus. Folia radicalia petiolo 2-3-pollicari orbicularia vel rotundo-ovata, 1-1½-pollicaria, subtus pallida. Racemus ante anthesin spicatus, demum elongatus. Verticillastri infimi longe remoti, supremi approximati, omnes subsecundi, laxi, irregulares. Calyx floriger vix 2 lin. longus, fructifer 3-4 lin., nervis 5 validis, labio superiore subplano. Corolla parva, cærulescens. Stylus breviter exsertus.

SECTIO XIV. HEMISPHERE.

Hemisphere. *Benth. in Hook. Bot. Misc. 3. 374.*

Calyx tubulosus, labio superiore truncato tridentato, inferiore bifido. Corollæ tubus intus piloso-annulatus, labium superius erecto-patens fornicatum, inferioris lobi patentes. Connectiva postice remota, brevissime producta, deflexa, acuta. Filamenta recta, cum connectivo subcontinua.—Herbæ regionis Mediterraneo-Ponticæ, habitu Heterosphacium. An genus proprium?

264. *S. VERTICILLATA* (Linn.! Spec. 37), caule herbaceo erecto piloso-hispido, foliis basi cordatis lyratis lobo supremo maximo ovato-rotundato vel integris sinuato-crenatis utrinque hispidis vel lanatis, racemis ramosis, verticillastris 20-40-floris remotis, calycibus tubulosis villosis, labio superiore truncato tridentato, inferiore bifido, dentibus omnibus setaceo-acuminatis, corollis calyce subduplo longioribus, tubo incluso, labio superiore recto fornicato, connectivis postice brevissime productis deflexis attenuatis, filamentis rectis connectivo subcontinuis.

Horminum verticillatum. *Mill. Dict. n. 3.*

β mollis, foliis utrinque molliter lanatis.

S. mollis. *Don! Hort. Cant. ed. 1804. non Jacq.*

γ pallida, foliis subintegerrimis cauleque pallide villosis.

Hab. in Europa australi et in Asiæ regione Mediterraneo-Pontica : in Hispania *Pavon!* Gallia prope Lutetiam *De Candolle*, Nannetem *Bonamy*, Sorreze *De Candolle*, in Sicilia *Cupani (Gussone)*, Pedemonte prope Taurinum *Allioni*, sed verosimiliter in omni Europa occidentali non vere indigena; in Germania! scil. in Germania rhenana, Saxonia, Silesia et Moravia *Reichenbach*, Vallesia! Austria! in Bœotia *Swainson!* in Syria prope Aleppo *Russell!* in regionis Ponticæ pratis montosis et in herbidis frequens, scil. ubique ad littora Ponti *Durville*, in Colchide circa Soukoum, in Ponto prope Trapezum et in vicinis Odessæ *Durville*, in Tauria *Bieberstein, Durville, Pallas!* *C. A. Meyer*, in Caucaso *Bieberstein, C. A. Meyer*, et in montibus Beschtau et Tälüs *C. A. Meyer*. Var. *α* et *β* ex cultura ortæ? (*h. s. c. et v. v. sp.*)

Caulis 2-3-pedalis, tetragonus, pilis brevibus albis hispidus. Folia ampla, irregulariter crenata vel sinuata, crenaturis rarius acutis, supra et subtus ad nervos hispidula, in var. *γ* juniora subtus dense lanata, floralia deflexa, bractæformia, sessilia, lato-ovata, acuminata, ciliata, membranacea, calyce breviora. Racemi sæpe pedales vel ultra, basi ramos utrinque 1-2 emittentia. Verticillastri globosi, plerumque 20-30-flori. Pedicelli calyce subbreiores. Calyx striatus, basi pilis patentibus dense hispidus, apice glabriusculus, sæpe coloratus. Dentes labii superioris ovati, acutissimi, patentes, inferioris lanceolati, erecti. Corolla calyce dimidio longior, tubo vix exserto, extus pubescens, labio superiore sæpe deflexo, inferioris lobi abbreviati, medio rotundato. Stamina superiorum rudimenta nulla, inferiora corollam subæquantia, loculis fertilibus medio affixis, connectivis edentulis.

265. *S. NAPIFOLIA* (Jacq.! Hort. Vind. 2. 71. t. 152), caule herbaceo erecto piloso-hispido, foliis inferioribus lyratis, lobo ultimo maximo foliisque superioribus ovato-oblongis sinuato-crenatis basi rotundatis cordatisve utrinque villosulis, racemis vix ramosis, verticillastris 6-12-floris remotis, calycibus tubulosis villosis, labio superiore truncato tridentato, inferiore bifido, dentibus omnibus setaceo-acuminatis, corollis calyce dimidio longioribus, tubo incluso, labio superiore recto fornicato, connectivis postice brevissime productis deflexis attenuatis, filamentis rectis cum connectivo subcontinuis.

S. verticillata, var. *Durv. in Mem. Soc. Linn. Par. 1. 260?**

* "Varietas insignis, foliis longioribus nunquam lyratis magisque rugosis, floribus duplo majoribus, atque calycibus sature violaceis."—*Durv. l. c.*

Hab. in Oriente: in fruticetis Smyrnæ *Fleischer!* in arvis Coi *Durville!* (*h. s. c. et v. s. sp. in herb. Martius.*)

Vix ac ne vix a *S. verticillata* differt verticillastris plerumque 10- nec 20-floris, floribus fere duplo majoribus. Folia ut in *S. verticillata* nunc integra, nunc lyrato-pinnatifida, lobo extimo maximo, lateralibus in petiolo auriculæformibus, sed plerumque ovato-oblonga potius quam ovato-rotundata et obtusiora.

266. *S. RUSSELLII*, caule herbaceo (?) erecto pubescente, foliis petiolatis oblongis acutis sinuato-dentatis crassis rugosis utrinque albolanatis, floralibus ovatis acuminatis calyce brevioribus, verticillastris laxe multifloris remotis, calycibus tubulosis, labio superiore truncato tridentato, inferiore bifido, dentibus omnibus acuminatis, corollis calyce dimidio longioribus, tubo incluso, labio superiore recto, connectivis postice brevissime productis subulatis, filamentis rectis connectivo subcontinuis.

Hab. in Syria prope Aleppo *Russell!* (*v. s. sp. in herb. Banks.*)

Flores omnino *S. verticillatæ*, sed minores. Folia fere *S. pomiferæ*. Species distinctissima.

Species mihi omnino ignotæ.

S. byzantina. *Juss. ex Steud. Nom. Bot.* 725.

S. Halleri. *Fisch. ex Steud. Nom. Bot.* 726.

S. rostrata. *Schmidt N. Abhandl. Böhm. Ges. Wiss.* 1. 11.

Species e genere excludendæ.

S. BENGHALENSIS *Roxb.* = *Meriandra benghalensis*.

S. DIANTHERA *Roth.* = *Meriandra benghalensis*.

XXIX. AUDIBERTIA.

Audibertia. *Benth. in Bot. Reg.* 17. n. 1469. non ejusd. in *Bot. Reg.* 15. ad calc. n. 1282.

Calyx ovatus, bilabiatus, labio superiore concavo integro vel breviter tridentato, inferiore bifido, intus fauce nuda. Corolla tubo calycem æquante vel exserto, limbo bilabiato, labio superiore bifido lobis patentibus, inferiore trifido lobis lateralibus ovatis oblongisve patentibus, medio latissimo emarginato. Stamina fertilia 2 (inferiora) adscendentia, sæpius exserta, superiorum rudimenta parva claviformia vel nulla. Antheræ dimidiatæ, connectivo lineari in filamentum articulado adscendente, apice antheram linearem unilocularem ferente postice non producto vel brevissime acuminato. Stylus breviter subulato-bifidus.

This Californian genus is intermediate between *Rosmarinus* and the sections *Echinosphace* and *Pycnosphace* of *Salvia*.

1. *A. GRANDIFLORA*, caule elato villosa, foliis oblongo-ellipticis sinuato-crenatis basi cordatis rugosis, verticillastris densis multifloris,

bracteis lato-ovatis calycibusque amplis membranaceis coloratis villosis, staminibus longe exsertis.

Hab. in California septentrionali *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caules 2-3-pedales, erecti, crassi, subsimplices, pilis simplicibus glandulosis villosi. Folia inferiora petiolata, 3-4-pollicaria, supra viridia, subvillosa, subtus laxe tomentoso-villosa, pallida vel canescentia, superiora sessilia, minora, angustiora, floralia lato-ovata, amplexicaulia, calyces vix superantia, pars suprema sæpe sterilis. Verticillastri demum 2 pollices diametro. Bracteæ calycem æquantes, numerosæ, imbricatæ, acutæ vel mucronulatæ, purpurascentes, villosæ, margine ciliatæ. Calycis labium superius amplum, obtusissimum, inferius dimidio brevius, profunde fissum, lobis lanceolatis acutis. Corolla fere sesquipollicaris, tubo longe exserto subincurvo apice parum dilatato, labia patentia, brevia, superiore emarginato bifido, inferioris lobi laterales oblongi, medius lato-rotundatus. Staminum superiorum rudimenta brevia, claviformia, inferiora fertilia, longe exserta, ad medium articulata. Connectiva sub articulatione non producta, apice antheram unilocularem linearem ferentia. Stylus stamina æquans, lobis subæqualibus. Achenia compresso-triquetra.

2. *A. HUMILIS*, suffruticosa, foliis ad basin caulis approximatis petiolatis oblongo-lanceolatis obtusis crenulatis basi longe angustatis rugosis canescentibus, floralibus bracteisque lanceolatis acutis villosis, genitalibus exsertis.

Hab. in California septentrionali *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Habitu varietates minores *Salviæ officinalis* refert. Caules semipedales, basi foliosi et incani, superne villosi. Folia infima 1-1½-pollicaria, petiolo fere pollicari, more *Salviæ officinalis* rugosa, in medio caulis remota, parva, in parte superiore sub verticillastris bracteæformia. Verticillastri 3-6 remoti, in racemum simplicem dispositi, semipollicem diametro, densi, multiflori. Calyces post anthesin inflati, profunde bilabiati, labio superiore brevissime tridentato dentibus acutissimis, inferiore dimidio breviora dentibus lanceolatis acutis. Corollæ tubus vix exsertus, labium superius breve bifidum, inferius duplo triplove longius. Stamina breviter exserta. Stylus multo longior, lobo superiore brevissimo.

3. *A. STACHYOIDES*, suffruticosa, ramis rigidis foliosis, foliis breviter petiolatis oblongo-lanceolatis obtusis crenulatis basi angustatis rugosis subtus canescentibus, floralibus bracteisque ovatis acuminatis, genitalibus corolla subbrevioribus.

Hab. in California septentrionali *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Affinis præcedenti, sed abunde diversa. Rami in speciminibus suppetentibus pedales, duri, tomentoso-pubescentes, superne uti bracteæ et calyces viscosi. Folia 2-3-pollicaria, petiolis brevibus basi dilatato-subamplexicaulibus, ut in *A. humili* rugosa, sed supra viridiora; floralia sessilia, lata, inferiora verticillastro longiora, superiora uti bracteæ calyces æquantia, villosa. Calyx *A. humilis*, sed rigidior, dentibus subspinosus. Corolla uti verticillastri fere *Stachydis germanicæ*, sed extus glabra. Tubus calycem æquans, labia brevia, æqualia, patentia. Genitalia labium superius æquantia vel breviora, vel raro parum longiora. Achenia oblonga, triquetra, glabra, lævia.

4. *A. NIVEA*, suffruticosa, ramis rigidis superne niveo-tomentosis, foliis subsessilibus lanceolatis obtusis basi rotundatis rugosis utrinque niveo-tomentosis, floralibus bracteisque ovato-lanceolatis, racemo simplici, genitalibus exsertis.

Hab. in California septentrionali *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Species distinctissima ramis foliis verticillastrisque niveo-lanatis. Rami

pedales, rigidi. Folia distantia, 1-1½-pollicaria, crassa, crenulata, floralia uti bracteæ calyces æquantia, obtusissima, integerrima. Verticillastri densissimi, plus pollice diametro. Calyx fructifer elongatus, incurvus, ore oblique fisso apice obtuso, labiis dentibusque obsoletis. Corollæ tubus breviter exsertus, labium superius inferiore brevius. Genitalia subæqualia, longiuscule exserta. Styli lobi subæquales.

5. *A. INCANA* (Benth. in Bot. Reg. 17. t. 1469), suffruticosa, ramis divaricatis ramosis canescentibus, foliis obovato-oblongis obtusis integerrimis basi angustatis canescentibus, floralibus bracteisque lato-ovatis, racemo simplici, genitalibus exsertis.

Hab. in America boreali-occidentali: in planitiibus ad flumen Columbia prope Priest's Rapid et in collibus argillosis prope locum The Big Birch dictum. (*h. s. sp. e Mus. Soc. Hort. Lond. et v. v. c.*)

Suffrutex humilis. Folia breviter petiolata, 1-1½-pollicaria, crassiuscula, sub-*enervia*, floralia sessilia, latiora, pubescentia, suprema orbiculata, ciliata, bracteis vix majora. Verticillastri densi, globosi, multiflori, distincti, inferiores ultrapollicem distantes. Bracteæ calycem æquantes, imbricatæ, orbiculatæ vel obovatæ, pubescentes, ciliatæ. Calyces subsessiles, pubescentes, labio superiore lato-rotundato integro obtusissimo, inferioris lobi oblongi, obtusi, labio superiore breviores. Corolla pallide cœrulea. Tubus calyce subduplo longior, rectus, æqualis, intus glaber, nudus. Limbi labium inferius superiore fere duplo longius, lobo medio latissimo concavo emarginato denticulato. Genitalia longe exserta, glaberrima. Staminum superiorum rudimenta nulla. Styli lobus superior brevissimus.

6. *A. POLYSTACHYA*, suffruticosa cano-tomentosa, foliis petiolatis oblongo-lanceolatis obtusis crenulatis, basi angustatis rugosis utrinque incanis, floralibus bracteisque laxis lanceolatis, racemulis numerosis in paniculam elongatam densam approximatis, genitalibus longe exsertis.

Hab. in California septentrionali *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caules pluripedales, subteretes, duri, basi sublignosi, foliosi, superne canescentes. Folia fere *Salviæ calycinæ*, sed angustiora, utrinque cano-tomentosa, superiora minora, angustiora, remota, floralia bracteis conformia. Panicula pedalis, racemulis numerosis sub-2-pollicaribus. Verticillastri approximati, laxiusculi, sub-6-flori. Bracteæ calyce subbreviores, lanceolatæ, acutæ. Calyces brevissime pedicellati; labium superius obtusum, subintegerrimum, inferius dimidio brevius, profunde fissum, lobis lanceolatis acutis. Corollæ tubus vix exsertus, labium superius breve, inferius multoties longius, lobo medio maximo. Genitalia longe exserta. Styli lobi brevissimi, superiore minuto.

XXX. ROSMARINUS.

Rosmarinus. Linn. Gen.

Calyx ovato-campanulatus, bilabiatus, labio superiore integro, inferiore bifido, fauce intus nuda. Corolla tubo exserto, intus glabro exannulato, fauce subinflata, limbo bilabiato, labiis subæqualibus, superiore erecto emarginato, inferiore patente trifido lobis lateralibus oblongis erectis subtortis, medio maximo concavo dependente. Staminum superiorum rudimenta nulla, fertilia (inferiora) 2 adscendentia, e labio superiore exserta. Filamenta ad faucem corollæ inserta, prope basin breviter dentata. Antheræ lineares subbiloculares loculis divaricatis confluentibus, margine connatæ. Styli lobus superior brevissimus. Stigmata minuta, terminalia. Achenia sicca, lævia.

A South European shrub, with the calyx of *Salvia* and *Audibertia*, and corolla and apparently the stamina of *Monarda*, unless the tooth at the base of the filament indicates an analogy to *Salvia*, in which case the anther must be considered as dimidiate, and the whole of the filament above the tooth as a filiform connectivum. It appears to me, however, rather more probable that the tooth is merely an appendage analogous to those of *Ocimum* and *Phlomis*, and consequently of very little importance.

1. *R. OFFICINALIS* (Linn.! Spec. 33).

R. officinalis. Sibth. et Sm. *Fl. Gr.* 1. 11. t. 14.

R. latifolius. Mill. *Dict. n.* 2.

Hab. in Europæ et Africæ regionis Mediterraneæ collibus siccis et rupestribus: in Atlante *Desfontaines*, Lusitania *Brotero*, Hispania! Gallia meridionali! ins. Balearicis *Cambessedes*, Italia a Pedemonte *Allioni* ad regnum Napolitanum *Tenore* et Siciliam *Gussone*, in Tyrolia meridionali et Istria *Reichenbach*, in ins. Græcis rarius, in Melo *Sibthorp*, Zacyntho necnon in Bœotia *Hawkins*, in Oriente *Vahl*. (v. et h. s. sp.)

Frutex 2-4-pedalis, dense ramosus et foliosus. Folia sessilia, linearia, integerrima, margine revoluta, subtus canescentia. Flores in racemis brevibus axillaribus pauci, approximati, oppositi, subsessiles, bracteis (vel foliis floralibus) calyce brevioribus. Calyx purpurascens. Corollæ tubus breviter exsertus. Corolla alba vel pallide cœruleo-purpurascens.

Species e genera excludenda.

R. CHILENSIS *Molin* = *Sphacele campanulata*.

XXXI. MONARDA.

Monardæ Sp. *Linn. et Auct.*

Monarda et *Cheilyctis.* *Rafinesque.*

Calyx tubulosus, elongatus, 15-nerviis, subæqualis, 5-dentatus, intus fauce villosa vel rarius subnuda. Corolla tubo exserto vel incluso intus glabro vel pubescente exannulato, fauce subdilatata, limbo bilabiato, labiis linearibus oblongisve subæqualibus, superiore erecto integro vel emarginato, inferiore patente apice breviter trifido lobis lateralibus ovatis obtusis, medio angustiore oblongo retuso emarginato. Staminum superiorum rudimenta subnulla, fertilia (inferiora) 2 adscendentia, e labio superiore corollæ sæpius exserta. Filamenta ad faucem corollæ inserta, edentula. Antheræ lineares subbiloculares loculis divaricatis confluentibus, margine connatæ. Stylus apice subæqualiter bifidus. Stigmata minuta, terminalia. Achenia sicca, lævia. — Herbæ, foliis integris plerumque dentatis crenatisve. Flores in verticillastris paucis densissimis glomerati, bracteis suffulti.

A very natural though small North American genus.

1. *M. DIDYMA* (Linn.! Spec. 32), foliis petiolatis ovato-lanceolatis

acuminatis basi rotundato-subcordatis utrinque hispidulis vel rarius glabratis, floralibus sessilibus bracteisque exterioribus oblongo-lanceolatis basi longe angustatis coloratis, calycibus incurvis striatis coloratis glabris, fauce subnuda, corollis glaberrimis.

M. fistulosa var. *Curt. Bot. Mag.* 5. t. 145 ?

M. didyma. *Bot. Mag.* 15. t. 546.

M. coccinea. *Mich. Fl. Bor. Amer.* 1. 16.

M. purpurea. *Lam. Dict.* 4. 256.

M. Kalmiana. *Pursh ! Fl. Amer. Sept.* 1. 17. t. 1. male.*

M. purpurascens. *Wender. Ind. Sem. Hort. Marb.* 1828.

Hab. in America septentrionali : in Canada et Pennsylvania *Kalm !* in rivulis excelsiorum montium Carolinæ septentrionalis *Michaux.* (*h. s. c. et v. s. sp.*)

Caules erecti, fistulosi, circiter bipedales, acute tetragoni, angulis sæpe præsertim sub axillis pilis raris ciliatis, nonnunquam asperis. Folia 2-3-pollicaria, apice sæpius in acumine longo angustata, irregulariter serrata, serraturis obtusis vel mucronulatis, supra pilis sparsis adspersa, subtus nervis prominulis plus minusve petiolisque ciliatis, inter nervos uti in pagina superiore pilis adspersa; floralia sessilia, angustiora, verticillastro sæpius longiora, basi colorata, cæterum caulinis similia. Verticillastri solitarii vel sæpius bini, 1½ vel 2 poll. distantes, magni, globosi. Bracteæ coccineæ, exteriores oblongo-lanceolatæ, basi longe angustatæ, foliis floralibus fere dimidio breviores, interiores numerosissimæ, subulatæ, sæpius ciliatæ, calyce sublongiores. Calyces semipollicares, extus glaberrimi, coccinei, striati, parum incurvi, ore subobliquo, dentibus lanceolato-subulatis latitudinem calycis vix æquantibus demum substellato-patentibus, fauce nuda vel pilis paucis instructa. Corolla coccinea, speciosa, cum calyce ultrasesquipollicaris, tubo basi tenui, superne ampliato, calyce duplo longiore, intus pubescente exannulato; labia subæqualia vel inferiore parum longiore. Genitalia longe exserta. Antheræ lineares, inter se longitudinaliter connexæ, medio in loculos 2 subcontractæ. Staminum superiorum vestigium nullum vel brevissimum subulatum nec unquam stamina didynama vidi, quamvis sæpe occurrere dicuntur. Styli lobi subulati, superiore brevissimo, inferiore triplo longiore.

2. *M. FISTULOSA* (Linn. ! *Spec.* 32), foliis petiolatis ovato-lanceolatis basi rotundato-subcordatis utrinque glabris pubescentibus hispidisve, floralibus sessilibus bracteisque exterioribus subcoloratis, calycibus subincurvis vix coloratis, fauce intus hispida, corollis glabris villosisve.

M. allophylla. *Mich. Fl. Bor. Amer.* 1. 16.

M. clinopodia. *Linn. ! Spec.* 32.

M. purpurea. *Pursh ! Fl. Amer. Sept.* 1. 17. non *Lam.*

M. oblongata. *Ait. Hort. Kew. ed.* 2. 1. 51.

M. rugosa. *Ait. Hort. Kew. ed.* 2. 1. 51.

M. glabra. *Lam. Dict.* 4. 256.

M. longifolia. *Lam. Dict.* 4. 255.

M. fistulosa. *Reichb. Icon. Exot.* 2. 28. t. 172.

M. altissima. *Willd. Enum. Hort. Berol.* 33. *Reichb. Icon. Exot.* 2. 27. t. 170.

M. affinis. *Link Enum. Hort. Berol.* 1. 9. *Reichb. Icon. Exot.* 2. 31. t. 182.

M. undulata. *Tausch. in Reichb. Icon. Exot.* 2. 31. t. 181.

M. media. *Willd. Enum. Hort. Berol.* 32. *Sw. Brit. Fl. Gard.* 1. t. 98.

M. violacea. *Desf. ! Cat. Hort. Par.* 66.

* The specimen in the Banksian herbarium, on which Pursh established his *M. Kalmiana*, is exactly the common *M. didyma*. Pursh's own specimen in Mr. Lambert's herbarium has the leaves rather narrower; but I cannot find any pubescence on the calyx or corolla, and the size of the flowers is that of the common *M. didyma*.

M. involucrata. *Wender. Ind. Sem. Hort. Marb.* 1828.

M. commutata. *Wender. l. c.*

M. lilacina. *Wender. l. c.*

M. hybrida. *Wender. l. c.*

M. barbata. *Wender. l. c.*

M. cœrulea, cristata, dubia, &c. *Hortul.*

β mollis (Linn. Spec. 32), foliis molliter pubescentibus, corollæ labio superiore densius barbato.

M. mollis. *Linn. Amæn. Acad.* 3. 399. *Reichb. Icon. Exot.* 2. 28. t. 171.

M. menthæfolia. *Grah. ! in Edinb. N. Phil. Journ.* 21. (1829) 347. *Bot. Mag.* 57. t. 2958.

Hab. in Americæ borealis montosis, dumetis, &c. vulgaris: in regione occidentali secus flumina Saskatchewan et Red River dicta *Douglas !* &c. in Canada ! Pennsylvania ! Virginia ! Carolina ! Novo Aureliano et ad Saint Louis *Drummond !* ad Missouri *Torrey !* etiam in Mexici provincia Texas *Herb. Hooker !* in dumetis prope Jalapa *Schiede et Deppe ;* var. *β* sæpius in regionibus borealibus, *α* in australioribus. (*h. s. sp.*)

Species statura, villositate, magnitudine et colore florum et bracteis forma maxime variabilis, a *M. didyma* constanter distincta statura elatiori, calycibus bracteisque minus coloratis, corollis minoribus plus minusve pubescentibus et præsertim calycis fauce intus pilis hispida et sæpius clausa. Caules 2-5-pedales, glabri, ciliati vel pubescentes, intus fistulosi vel farcti. Folia nunc ovata, nunc anguste oblonga, at sæpius ovato-lanceolata, glabra, hispida vel pubescentia, viridia vel canescentia. Bracteæ exteriores uti folia floralia nunc lato-ovatae basi cordatae, nunc lanceolatae basi rotundatae, vel oblongae basi angustatae, virides vel pallide roseae vel purpurascentes. Corollæ sæpius pallide roseae vel purpurascentes, rarius intense violaceae vel purpureae, nec unquam coccineae.

3. *M. BRADBURIANA* (Beck in Sillim. Amer. Journ. Scien. 10. 260), foliis subsessilibus ovato-lanceolatis basi rotundatis subtus canescenti-tomentosis utrinque pilosis, floralibus bracteisque exterioribus basi rotundatis subcordatis coloratis, calycibus glabriusculis striatis superne contractis, fauce hirsuta, dentibus subulatis aristatis, corollis calyce vix duplo longioribus extus glabriusculis, labio superiore tenuissimo apice barbato.

Hab. in America boreali *Fraser !* in locis incultis prope Saint Louis *Beck,* secus flumina Missouri et Ohio *Torrey !* (*v. s. sp. in herb. Lindley et Torrey.*)

Radix perennis. Caulis circiter 3-pedalis, glaber vel angulis ciliatis. Folia *M. fistulosæ,* sed subsessilia et pilis longis mollibus adpersa et ciliata. Verticillastri solitarii, magnitudine *M. fistulosæ.* Bracteæ lato-lanceolatae, basi subcordatae, uti calyces purpurascentes. Calyces inferne inflati, superne contracti, ore villosissimo, dentibus latitudine tubi dimidio vel subduplo longioribus demum stellato-patentibus. Corollæ pallidæ, vix calyce duplo longiores, labio inferiore punctis purpureis notato.

4. *M. RUSSELLIANA* (Nutt. ! Trav. in Arkans. Territ. 141), glabriuscula, foliis subsessilibus lanceolatis basi rotundatis subcordatis, floralibus bracteisque exterioribus sessilibus coloratis basi longe angustatis muticis, calycibus glabriusculis, fauce subnuda, dentibus subæqualibus lanceolatis abbreviatis rigidis, corollis glabris, tubo longe exserto, labio inferiore punctato.

M. Russelliana. *Sims Bot. Mag.* 51. t. 2513. *Hook. Exot. Fl.* 2. 130. *Sw. Brit. Fl. Gard.* 2. t. 166.

July 1833.

T T

Hab. in America septentrionali: in Arkansas *Nuttall*, inter Rocky Mountains *Torrey*. (*h. s. c. et v. s. sp.? in herb. Hooker.*)

Caules elongati, glabri vel ad angulos tenuissime ciliati. Folia bipollicaria, vix semipollicem lata, remote dentata, glabriuscula vel margine ciliata, subtus nitida, floralia uti bracteæ exteriores sæpe purpurascentia. Bracteæ paucae, laxae, vix calycibus longiores, basi angustatae, apice acutae nec aristatae. Verticillastri solitarii vel pauci, ut in *M. punctata* parvi. Calyces inferne parum inflati, glaberrimi, superne contracti, ore obliquo, dentibus demum stellato-patentibus glandulosis. Corolla gracillima, tubo tenui, labiis elongatis, inferiore eleganter punctato. Genitalia exserta. Antheræ cohærentes, vix biloculares.

5. *M. PUNCTATA* (Linn. Spec. 32), tenuiter pubescens, foliis petiolatis lanceolatis basi angustatis, floralibus bracteisque exterioribus sessilibus basi subcoloratis muticis, calycibus pubescentibus, fauce breviter barbata, dentibus subæqualibus lanceolatis abbreviatis rigidis, corollis glabris, tubo vix exserto, labio inferiore punctato.

M. lutea. *Mich. Fl. Bor. Amer.* 1. 16.

M. punctata. *Bot. Rep.* 8. t. 546. *Bot. Reg.* 1. t. 87.

Hab. in America boreali a Virginia *Michaux!* et Novo Jersey *Pursh!* ad Floridam *Michaux!* Carolinam *Pursh!* *Wray!* &c. Alabama et Novum Aurelianum *Drummond!* (*h. s. sp.*)

Caules adscendentes, ramosi, pedales, pubescentes, obtuse tetragoni, indeterminati. Folia 2-pollicaria, angustata, parce dentata vel subintegra. Verticillastri in parte superiore caulis pauci, remoti, minores quam in præcedentibus, omnes foliis floralibus breviores. Calyces basi parum inflati. Corollæ tubus vix exsertus. Genitalia labium superius æquantia.

6. *M. ARISTATA* (Nutt.! Trav. in Arkans. Terr.?) canescens, foliis oblongo-lanceolatis basi angustatis, floralibus bracteisque exterioribus sessilibus subcoloratis apice longe subulato-aristatis, calycibus striatis pubescentibus, fauce barbata, dentibus subæqualibus longe subulatis apice penicellatis, corollæ tubo dentes calycinos vix excedente.

M. citriodora. *Cervant. ex Lag.!* *Nov. Gen. et Sp.* 2.

Hab. in America septentrionali: in Arkansas *Nuttall!* in Mexici provincia Texas ad Bejar et Rio de la Trinidad *Herb. Hooker!* in Nova Hispania *Lagasca.* (*h. s. sp. comm. a cl. Hooker et v. s. sp. in herb. Torrey, Lambert, &c.*)

Habitus et statura *M. punctatae*. Folia argute et remote serrata, etiam caulina apice uti serraturæ sæpe subulato-aristata. Bracteæ numerosissimæ, exteriores ciliatæ, sæpe purpurascentes vel flavescentes, supra subtomentosæ, margine ciliatæ, apice longe subulato-aristatæ. Corollæ magnitudine *M. punctatae*, sed labium superius latius, inferius impunctatum. Stamina labio superiore breviora. Dentes calycini subulato-aristati, vix latitudinem tubi excedentes.

Species dubiæ vel non satis notæ.

7. *M. SCABRA* (Beck in Sillim. Amer. Journ. of Scien. 10. 260.)

Hab. in America boreali: in sylvestribus ad Mississipi prope St. Louis *Beck.*

“ Perennis. Caulis obtusangulus, glabriusculus, tripedalis, ramosus. Folia 2-2½-pollicaria, ovato-lanceolata, subcordata, serrata, margine revoluta, scabra, crassa,

punctata, breviter petiolata, subvillosa. Bracteæ ovato-lanceolatæ. Florum capituli magni, terminales, subterni. Calyx semipollicaris, hirsutus. Faux dense barbata. Dentes breves, acuti, subrecti. Corolla hirsuta, pallide purpurea; labium superius rectum, staminibus subæquale."—*Beck l. c.*

An *M. fistulosæ* var.?

8. *M. GRACILIS* (Pursh Fl. Amer. Sept. 1. 17).

Hab. in America septentrionali: in montibus Carolinæ meridionalis et Virginie *Lyon* (*Pursh*).

"*M. glaberrima*, capitulis parvis nudiusculis lateralibus terminalibusque, bracteis exterioribus linearibus ciliatis, calycibus pubescentibus ciliatis, corollis brevibus tenuissimis glabris, foliis lineari-lanceolatis acuminatis serratis glabris, caule obtusangulo glabro."—*Pursh l. c.*

An *Blephilia* species? In herbario Purshiano deest.

Species e genere excludendæ.

M. CILIATA Linn. = *Blephilia ciliata*.

M. CILIATA Pursh = *Blephilia hirsuta*.

M. HIRSUTA Pursh = *Blephilia hirsuta*.

M. ZEYLANICA Burm. = *Anisomeles ovata*.

M. PRATENSIS, *M. RIGIDA* et *M. VIRGATA* Rafin. *Med. Fl.* 2. 37. ex descriptione non recognoscendæ, et ideo excludendæ.

XXXII. BLEPHILIA.

Monardæ Sp. Linn. et Auct.

Blephilia. Rafinesque.

Calyx ovato-tubulosus, 13-nervis, intus fauce nuda, bilabiatus, labio superiore tridentato dentibus aristatis, inferiore bidentato dentibus muticis vel breviter aristatis. Corolla tubo subexserto intus exannulato, fauce dilatata, limbo bilabiato, labiis subæqualibus, superiore erecto integro, inferiore patente trifido lobis lateralibus ovato-rotundatis, medio angustiore oblongo retuso emarginato. Staminum superiorum rudimenta nulla vel parva filiformia, fertilia (inferiora) 2 adscendentia, e labio superiore corollæ exserta. Filamenta ad faucem corollæ inserta, edentula. Antheræ lineares subbiloculares loculis divaricatis confluentibus, margine connatæ. Stylus apice subæqualiter bifidus. Stigmata minuta, terminalia. Achenia sicca, lævia.—Herbæ, habitu et characteribus inter *Monardas* et *Zizyphoras* mediæ: folia priorum, flores fere posteriorum. Verticillastri plurimi, globosi, supremi in spicam subapproximati.

Both the species are North American.

1. *B. CILIATA* (Raf. Journ. Phys. 89. 98), foliis subsessilibus ovato-oblongis basi angustatis subtus canescentibus, floralibus inferioribus conformibus, supremis bracteisque exterioribus ovatis acutis coloratis calyces æquantibus.

Monarda ciliata. Linn. *Spec.* 33. non Mich.

Hab. in America boreali: in Pennsylvania? *de Schweinitz!* in Virginia *Pursh!* Carolina? *Fraser!* ad Missouri *Baldwin*, prope Saint Louis *Beck.* (*h. s. sp. comm. a cl. de Schweinitz.*)

Caules erecti, acute tetragoni, pubescentes, angulis retrorsum hirsutis. Folia 2-pollicaria, glabriuscula vel tenuissime tomentosa et subtus ad nervos piloso-hispida. Verticillastri globosi, remoti, omnes distincti. Bracteæ ovatæ, rigidæ, nervosæ, ciliatæ, apice rubescentes, acutissimæ, interiores angustiores. Flores vix semipollicares. Calyx extus hirsutus. Corolla extus villosa, labium superius inferiore brevius. Genitalia parum longiora.

2. *B. HIRSUTA*, foliis petiolatis ovatis basi rotundato-cordatis utrinque hirsutis, floralibus inferioribus conformibus, supremis bracteis-que lineari-subulatis, calyce brevioribus, calycibus pubescentibus recurvis.

Monarda hirsuta. *Pursh Fl. Amer. Sept.* 1. 19.

Monarda ciliata. *Mich. Fl. Bor. Amer.* 1. 16. non *Linn.*

Hab. in America septentrionali: in montosis Virginie *Michaux!* ad lacum Michigan et flumen Missouri *Torrey!* prope Saint Louis *Drummond!* (*h. s. sp.*)

Habitu ramosior et laxior quam *B. ciliata*. Caules tetragoni, hirsuti. Verticillastri numerosiores, minores, supremi approximati. Calyx minor, magis hirsutus. Corolla magis exserta, subglabra.

XXXIII. ZIZYPHORA.

Zizyphora. *Linn. Gen.*

Calyx tubulosus, elongatus, 13-nervis, intus fauce villosa, bilabiatus, labio superiore tridentato dentibus muticis. Corolla tubo vix exserto intus exannulato, fauce dilatata, labiis subæqualibus, superiore erecto integro, inferiore patente trifido lobis rotundatis, medio longiore emarginato. Staminum superiorum rudimenta subnulla, fertilia 2 (inferiora) sub labio superiore adscendentia et ei subæqualia vel longiora. Filamenta ad faucem corollæ inserta, edentula. Antheræ lineares sub-biloculares loculis divaricatis confluentibus, margine subconnatæ. Styli lobus superior brevissimus. Stigmata minuta, terminalia. Achenia sicca, lævia.—Herbæ vel suffrutices, habitu inter *Monardas* et *Thymos* mediæ. Folia integerrima vel dentibus paucis raris minutis notata, subtus venis divergentibus lineata, floralia subconformia, nunc latiora, nunc angustiora. Verticillastri pauciflori, in apices ramorum sæpius approximati. Pedicelli breves, complanati, erecti. Bracteæ subnullæ. Flores inter *Blephilias* et *Thymos* mediæ.

This genus is common to the southern parts of Europe and of the Russian empire. As thus restricted, it forms a very natural group, closely allied to *Blephilia*, but widely different from *Cunila* and *Hedeoma*, with which it has frequently been united.

§ 1. *Perennes suffruticosæ.*

1. *Z. CLINOPODIOIDES* (*Bieb. Fl. Taur. Cauc.* 1. 17), suffruticosa, foliis ovatis oblongis lanceolatisve, floralibus subconformibus angustioribusve laxis, verticillastris in capitulum subrotundum terminalem approximatis, calycibus cano-pubescentibus vel pilis paucis ciliatis.

α canescens, foliis plerumque angustis, calycibus minime pilosis.

Cunila capitata. Linn. Spec. 30.

Thymus punctatus. Willd. Phytogr. 1. 8. ex Rœm. et Schult. Syst. 1. 208.

Thymus lucidus. Ehrh. Beitr. 7. 150. ex Rœm. et Schult. l. c.

Z. clinopodioides, *α cunila* et *β acinoides*. Rudolph in Mem. Acad. Scient. Petrop. 2. 313.

Z. tenuior. Falk Topogr. 1. 98. ex Rud. l. c.

Z. Mussini. Adam apud Web. et Mohr. Beitr. ex Rud. l. c.

Z. serpyllacea. Bieb. Fl. Taur. Cauc. 1. 17. Rud. in Mem. Acad. Scient. Petrop. 2. 315. t. 12.

β media, foliis plerumque ovatis, calycibus pilosiusculis.

Z. clinopodioides. Rudolph in Mem. Acad. Scient. Petrop. 2. 311. t. 11. excl. var. *α* et *β*.

Z. serpyllacea. Sims Bot. Mag. 23. t. 906. male.

Z. media. Link Enum. Hort. Berol. 1. 17.

Hab. in graminosis montosis Asiæ mediæ: in Armeniæ Ibericæ monte Alioar et in Caucaso! frequens Bieberstein, prope Tiflim Steven! in rupestribus montis Beschbarmak et in littore arenoso maris Caspii prope Derbend C. A. Meyer, in jugo Altaico frequentissima Ledebour! in Sibiricæ regione Isetense Gmelin, in deserto Soongarico prope Irtim Falk, *β* in Caucaso! in apricis montium Altaicorum ad flumina Tscharysch et Korgon Ledebour! in montibus Taliusch prope pagum Swant C. A. Meyer. (*h. s. sp.*)

Suffrutex habitu *Thymi Serpylli* varietatum majorum. Rami diffusi, semipedales vel vix pedales, sæpe purpurascens, uti folia et calyces tomento brevissimo canescentes. Folia infima plerumque lato-ovata, superiora angusta, oblonga vel in var. *β* omnia ovata, vix unquam semipollicaria, basi in petiolum brevem angustata, nervosa, punctata. Verticillastri pauci, 6-10-flori, in capitulum laxiusculum subglobosum approximati. Folia floralia calycem æquantia vel vix longiora, sæpius angusta, rarius præsertim in exemplaribus cultis ovata. Bractæ minutissimæ, subnullæ. Pedicelli fere lineam, calyces 2½ lin. longi. Dentes calycini breves, acuti, post anthesin conniventes. Corolla (cum labiis) calyce subduplo longior, cœruleo-purpurea. Labii inferioris lobi laterales, rotundati, medius longior, emarginatus. Stamina breviter exserta vel interdum corolla breviora.

2. *Z. DASYANTHA* (Bieb. Fl. Taur. Cauc. 1. 18), suffruticosa, foliis ovatis oblongisve, floralibus conformibus laxis, verticillastris in capitulum oblongum approximatis vel inferioribus distinctis, calycibus hispido-pilosissimis.

Z. Puschkini. Adam in Web. et Mohr. Cat. 1. 42. ex Rœm. et Schult. Syst. Sims Bot. Mag. 27. t. 1093. male.

Hab. in Caucasi Iberici subalpinis Bieberstein, C. A. Meyer, Fischer! et in montibus Taliusch C. A. Meyer! (*h. s. sp. comm. a cl. de Klustine.*)

A *Z. clinopodioides* differt foliis latioribus, florum capitulis longioribus, et calycibus piloso-hispidissimis. Dentes calycini etiam parum longiores. Corollæ plerumque breviores, et stamina rarius exserta.

3. *Z. CANESCENS*, foliis ovatis utrinque molliter cano-pubescentibus, floralibus conformibus, verticillastris in capitulum terminalem approximatis, calycibus molliter pubescentibus.

Hab. in Syria et in Ægypto Labillardière! (*v. s. sp. in herb. DC.*)

Habitu *Z. hispanicæ* affinis, sed suffruticosa videtur. Floribus capitatis *Z. clinopodioidi* approximatur, at folia floralia latiora, calyces minores. Ab utraque foliis, ramis calycibusque molliter cano-pubescentibus distinguitur.

§ 2. *Herbaceæ annuæ.*

4. *Z. HISPANICA* (Linn.! Spec. 31), annua, foliis subsessilibus ovatis oblongisve, floralibus rhomboideis calyce longioribus, verticillastris distinctis axillaribus approximatis 6-10-floris, calycibus sessilibus.

Hab. in Hispania *Pavon!* (*h. s. sp. comm. a cl. Lambert.*)

Herba 2-4-pollicaris, dura, basi ramosa, ramis adscendentibus rigidis villosis. Folia inferiora angustiora, floralia subplicata, rigida, nervosa. Verticillastri parum distantes, ramorum partem majorem occupantes. Calyces subsessiles, breviter hispidi, basi subinflati, apice attenuati, dentibus conniventibus. Corollæ vix calycem excedentes.

5. *Z. ACINOIDES* (Linn.! Spec. 31), annua, foliis breviter petiolatis lato-ovatis, floralibus conformibus calyce longioribus, verticillastris paucis distinctis axillaribus laxis 6-10-floris, calycibus pedicellatis.

Hab. in Hispania *Pavon!** (*h. s. sp. comm. a cl. Lambert.*)

Affinis *Z. hispanicæ*. Caules longiores, laxiores. Flores majores. Calyces piloso-hispidi.

6. *Z. CAPITATA* (Linn.! Spec. 31), foliis lanceolatis basi angustatis, floralibus latissimis rhombeo-ovatis acuminatis, verticillastris in capitulum subglobosum terminalem approximatis, calycibus piloso-hispidis.

Z. capitata. *Rudolph in Mem. Acad. Scient. Petrop.* 2. 308. t. 10. *Sibth. et Sm. Fl. Gr.* 1. 10. t. 13.

Hab. in regionis Mediterraneæ et Rossicæ australis agris, campis et collibus: in cultis in Atlante *Desfontaines*, Hispania *Leon Dufour!* Italia meridionali *Requien!* monte Crucis ins. Cypri *Sibthorp!* Armenia *Buxbaum*, Caucaso *Prescot!* Tauria *Beaupré!* montibus Soongaricis *Falk (Rudolph).* (*h. s. sp.*)

Herba annua, 3-6-pollicaris, divaricato-ramosa, ramis pubescentibus. Folia caulina *Z. tenuioris*, floralia latissima, ciliata, venis validis subtus lineata, calyces excedentia. Capitula densa, terminalia. Calyces *Z. tenuioris*. Corollæ parum longiores, tubo tenui exserto, limbo brevi. Stamina corollam subæqualia.

7. *Z. TENUIOR* (Linn.! Spec. 31), foliis lanceolatis basi angustatis, floralibus subconformibus, verticillastris omnibus distinctis axillaribus, calycibus hispidopilosissimis, corollis e calyce breviter exsertis.

Z. spicata. *Cerv. Ann. Scienc. Matr.* 4. 259 (*fide spec. cult. ex Sem. e Hort. Matr. miss.*)

Z. serpyllacea. *Ten. Syll. Fl. Nap.* 16? non *Bieb.*

Hab. in regionis Mediterraneæ et Rossicæ australis collibus incultis: in Hispania *Pavon!* Atlante *Desfontaines*, Apulia *Tenore?* in locis siccis montium Talüsch prope pagum Swant *C. A. Meyer*, in monte Arkaul jugi Altaici *Ledebour!* (*h. s. sp. comm. a cl. Lambert et v. s. sp. in herb. Lindley, &c.*)

Herba annua, basi procumbens, ramis numerosis erectis semipedalibus pilis reflexis pubescentibus. Folia pollicaria et longiora, acuta, integerrima, vel hinc

* Siberia is the usual habitat given for this species; but I have not met with it in any Russian collections, nor is it mentioned by Bieberstein, Ledebour, or Meyer. The specimen in Linnæus's herbarium is a cultivated one.

inde denticulata, margine et nervo medio præsertim superiora ciliata vel rarius omnia nuda, cæterum glabriuscula, pallida, floralia calyce longiora. Verticillastri laxi, 6-15-flori, sæpius in parte majore caulis dispositi. Pedicelli 1-2 lin. longi, complanati. Calyces 3-4-lineares, extus pilis longis patentibus, intus fauce parce villosa, dentibus conniventibus. Stamina inclusa.

8. *Z. TAURICA* (Bieb. Fl. Taur. Cauc. 4. 259), foliis lanceolatis basi angustatis, floralibus subconformibus, verticillastris omnibus distinctis axillaribus, calycibus hispido-pilosissimis, corollis calyce duplo longioribus.

Thymbra spicata. Pall. Ind. Taur. ex Bieb. l. c.

Hab. in Tauriæ montosis et apricis glareosis totius oræ meridionalis *Pallas! Steven! in Persia Belanger! (h. s. sp. comm. a cl Endlicher.)*

Z. tenuiori simillima. Differt corollis magnitudine florum *Acyni alpini*.

Species dubia.

9. *Z. JAVANICA* (Blume Bijdr. 822).

Hab. in Java: in cacumine montis ignivomi Tjerimai provinciæ Cheribon *Blume*.

“*Z. floribus capitato-spicatis terminalibus, bracteis subulatis ciliatis, calycibus villosis, foliis petiolatis ovatis extrorsum grosse serratis utrinque caulibusque prostratis pubescentibus.*”—*Blume l. c.*

Corollæ labium superius reflexum integrum, inferius trilobum. Stamina 2, vix exserta. Antheræ sagittatæ. Stigma inæquale, bifidum (*Blume*).

Species e genere excludendæ.

Z. BRACTEOLATA Ræm. et Schult. = *Micromeria bracteolata*.

Z. GLABELLA Ræm. et Schult. = *Micromeria glabella*.

Z. HISPIDA Steud. = *Hedeoma hispidum*.

Z. MARIANA Ræm. et Schult. = *Cunila mariana*.

Z. PULEGIOIDES Desf. = *Hedeoma pulegioides*.

Z. PUNGENS Ledeb. = *Nepeta pusilla*.

Z. SILIQUOSA Lour. = *Justicia obscura* Vahl.

Z. THYMOIDES Ræm. et Schult. = *Thymus serpyllum* var. (*Cunila thymoides* Herb. Linn.) et *Micromeria filiformis* (*Cunila thymoides* Herb. Gouan.) The *Acynos patavina* and *A. vulgaris*, and several *Micromerias*, also represent occasionally this imaginary species.

TRIBUS IV. SATUREINEÆ.

CALYX quinquedentatus, æqualis, vel bilabiatus labio superiore 3-dentato, inferiore bifido. Corollæ tubus intus exannulatus, calyce vel bracteis imbricatis brevior vel vix longior; limbus subbilabiatus; labio superiore plano, integro vel emarginato-bifido; inferiore patente, trifido, lobis planis subæqualibus vel medio vix latiore. Stamina distantia, recta, divergentia vel vix adscendentia, æqualia vel superiora breviora vel abortiva.

The distinction between this and the following tribe, and between the several genera of which they consist, is vague and unsatisfactory; but after much consideration, and a detailed examination of the characters of all the species I have had within my reach, I have been unable to group them in any manner which appeared to me more in accordance with their natural affinities. The tetrandrous *Satureineæ* are intermediate between *Menthoideæ* and *Melissineæ*; but the corolla is more decidedly bilabiate than in the former tribe, and the stamens are seldom ascending, as in the latter, from most genera of which the *Satureineæ* are also distinguished by the shortness of the tube of the corolla. The diandrous genus *Cunila* connects *Monardeæ* with *Melissineæ*. *Collinsonia* forms the passage to *Ocymoideæ*.

The true place of this tribe is immediately after *Menthoideæ*, and before *Melissineæ*; but *Monardeæ* are also connected with both tribes; and I thought it better to break the line by inserting them here than in any other place.

XXXIV. BYSTROPOGON.

Bystropogonis sp. *L'Hér. Sert. Angl.* 19.

Calyx 10-13-nervius, campanulatus tubulosusve, æqualis, 5-dentatus, intus fauce villosa. Corolla tubo incluso, limbo subbilabiato, labio superiore suberecto bifido, inferiore patente trifido, lobis omnibus planis integris. Stamina 4, erecta, distantia, corolla breviora, didynama, inferioribus longioribus. Filamenta glabra. Antheræ biloculares, loculis parallelis. Discus æqualis, eglandulosus. Stylus apice breviter bifidus, lobis subæqualibus linearibus subincrassatis obtusis apice stigmatiferis. Achenia sicca, lævia. — Frutices. Flores parvi, in sectione prima cymosi, cymis dichotomis subcorymbosis paniculatisve; in *Minthostachyde* verticillastri densi, spicati. Bractæ lanceolato-subulatæ. — Genus vix a *Mentha* distinctum.

The four species of the first section are confined to the Canary Islands; those of the second are South American.

SECTIO I. BYSTROPOGON.

Calyx 10-nervius, campanulatus. Flores laxè cymosi.

1. *B. PUNCTATUS* (L'Hér.! Sert. Angl. 20. t. 23), foliis crenatis utrinque viridibus glabris vel subtus vix tomentosis, cymis pedunculatis corymbosis, dentibus calycinis ovatis.

Hab. in ins. Madera! (*h. s. sp. comm. a cl. Hooker.*)

Frutex tripedalis. Rami glabri vel tenuissime subtomentosi. Folia 1-1½-pollicaria, petiolata, ovata, obtusa, basi rotundata, supra glabra, subtus venis prominentibus et tomento tenuissimo sæpe pallida. Cymæ axillares, corymbosæ, longe pedunculatæ, rami primarii et interdum secundarii elongatæ, apice capitula 5-10-flora ferentes, flores in quaque dichotomia solitarii, pedicellati. Bracteæ breves, subulatæ. Calyces hispidi, dentibus brevibus acutis. Corolla extus tenuiter pubescens.

2. *B. CANARIENSIS* (L'Hér.! Sert. Angl. 20), ramis villosissimis, foliis crenatis villosis glabrativè utrinque viridibus, cymis axillaribus pedunculatis corymbosis, dentibus calycinis subulatis tubo brevioribus.

Mentha canariensis. Linn. Spec. 807.

Heliotropium canariense, &c. Comm. Hort. Amst. 2. 129. t. 65.

Hab. in ins. Canariensibus *Masson!* (*v. s. sp. in herb. Banks.*)

Rami floriferi valde hispidi. Folia minora quam in *B. punctato*, floralia cymas subæquantes. Cymæ inferiores capitellatæ ut in *B. punctato*, superiores fere a basi dichotomæ, dense floriferæ, floribus omnibus pedicellatis vix capitellatis. Rami uti calyces hirsutissimi. Dentes calycini tubo longiores, corollas æquantes. Valde affinis *B. punctato*, a quo differt villositate et dentibus calycinis tenuioribus.

3. *B. PLUMOSUS* (L'Hér.! Sert. Angl. 20. t. 22), foliis serrato-crenatis supra tenuissime subtus albido-tomentosis, cymis axillaribus densis, dentibus calycinis subulatis.

Hab. in ins. Canariensibus! (*h. s. c. et v. s. sp. in herb. Banks, &c.*)

Habitus *B. canariensis*. Folia fere *B. organifolii*, at sæpius dentata. Rami floriferi villosi. Folia floralia cymis breviora. Cymæ dichotomæ, densæ, sessiles, floribus numerosissimis.

4. *B. ORGANIFOLIUS* (L'Hér.! Sert. Angl. 20), foliis subintegerimis subtus albo-tomentosis, cymis pedunculatis paniculato-racemosis, dentibus calycinis subulatis.

Mentha plumosa. Linn. Mant. 273.

Hab. in ins. Canariensibus! (*h. s. sp. comm. a cl. Requier.*)

Rami floriferi tomentosiusculi. Folia floralia superiora floribus multo breviora. Racemus nunc pedalis laxis, nunc brevior subcorymbæformis. Cymæ pedunculatæ, parum ramosæ, ramis irregulariter 2-3-chotomis apice capituliferis; inferiores abeunt in ramos breves, folia caulinis conformia et cymas parvas ferentes. Flores *B. canariensis*. Calyces et pedicelli minus hispidi.

SECTIO II. MINTHOSTACHYS.

Calyx 13-nervius, tubulosus. Verticillastri dense spicati.

This section is intermediate between *Bystropogon* and *Pycnanthemum*, and differs from both in habit and geographical station; but the characters which separate it from *Bystropogon* appear too slight to constitute a distinct genus.

5. *B. SPICATUS*, foliis subserratis utrinque viridibus glabris, verticillastris densis spicatis, dentibus calycinis ovatis.

Hab. in Peruvia: ad Purrochuca *Mathews!* (*h. s. sp. comm. a cl. Lindley.*)

Frutex ramis glaberrimis. Folia petiolata, 1-1½-pollicaria, ovata, acutiuscula, remote et leviter serrata, basi rotundata. Floralia multo minora, utrinque cano-tomentosa. Verticillastri 6-10-flori, in spiculis brevibus oblongis vel subglobosis terminalibus dense aggregati. Calyces villosissimi. Corollæ vix dentibus calycinis longiores, uti genitalia omnino *Bystropogonis*. Stamen quintum fertile sæpe occurrit.

6. *B. TOMENTOSUS*, foliis subcrenatis supra viridibus hispidulis demum glabratis subtus tomentoso-lanatis, verticillastris densis subspicatis, dentibus calycinis subulatis.

Hab. in Peruvia *Ruiz et Pavon!* (*v. s. sp. in herb. Lambert.*)

Frutex ramis divaricatis junioribus villosis. Folia caulina petiolata, 1-2-pollicaria, nunc ovata obtusa, nunc ovato-lanceolata acuta, basi rotundata, rugosiuscula, lana subtus densa alba vel rufescente, floralia gradatim minora, suprema calyces vix superantia, utrinque molliter villosa. Verticillastri multiflori, inferiores subdistincti, superiores in spiculis oblongis foliosis approximati. Calyces villosissimi. Corolla *B. spicati*.

7. *B. CANUS*, foliis ovato-lanceolatis subdentatis utrinque canescentibus, verticillastris inferioribus distinctis superioribus subspicatis, dentibus calycinis subulatis.

Hab. in Peruvia *Ruiz et Pavon!* (*v. s. sp. in herb. Lambert.*)

Frutex ramis villosis tenuibus. Folia pollicaria, petiolata, acuta, basi cuneato-rotundata, floralia parva. Verticillastri multiflori, laxiusculi. Flores minores ac in præcedentibus.

Species dubia.

B. DENTATUS (Poir. Dict. Suppl. 1. 755).

Hab. in Peruvia *Herb. Jussieu. (Poiret.)*

“*B. foliis ovatis hirsutis serratis: verticillis florum hispidis.*”—*Poir. l. c.*
Verosimiliter *Hyptidis* sp.

Species e genere excludendæ.

B. BIPINNATUS Roth. = *Lavandula Burmanni*.

B. COARCTATUS Schum. = *Hyptis pectinata*.

B. GRAVEOLENS Blume = *Hyptis suaveolens*.

B. MARIFOLIUS Juss. = *Micromeria marifolia*.

B. MOLLIS Humb. et Kunth. = *Mentha mollis*.

B. PECTINATUS L'Hér. = *Hyptis pectinata*.

B. SIDÆFOLIUS L'Hér. = *Hyptis polyanthos*.

B. SUAVEOLENS L'Hér. = *Hyptis suaveolens*.

XXXV. PYCNANTHEMUM.

Pycnanthemum. Mich. Fl. Bor. Amer. 2. 7.

Brachystemum. Mich. Fl. Bor. Amer. 2. 5.

Koellia. Mæench. Meth. 407.

Tullia. Leavenworth in Sillim. Amer. Journ. of Science, 20. 343.

Calyx ovatus vel tubulosus, sub-13-nervius, 5-dentatus, dentibus

subæqualibus rectis vel 3 superioribus in labio superiore basi coalitis, faux intus nuda. Corolla tubo calycem æquante, limbo subbilabiato, labio superiore recto plano integro vel brevissime emarginato, inferiore plano trifido, lobis omnibus ovatis obtusis. Stamina 4, subæqualia, vel inferiora parum longiora, recta, divergentia, exserta vel inclusa. Antheræ biloculares, loculis parallelis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, lævia, vel minute punctato-rugosa.—Herbæ perennes, rigidæ, sæpe canescentes, apice corymboso-paniculatæ. Verticillastri pauci, densi, multiflori, bracteis suffulti, sæpius capitula terminalia formantes, nunc uno alterove infra secus caulem disposito. Corollæ albidæ vel purpurascens, labio inferiore sæpe purpureo-maculato.

A North American genus, which becomes very natural when made to comprehend *Tullia* and *Brachystemum*, and excluding *Monardella*.

CONSPECTUS SPECIERUM.

SECT. I. TULLIA. *Calyx sæpe bilabiatus, dentibus subulato-aristatis. Verticillastri sæpius laxi. Folia plerumque petiolata.*

Verticillastri 1-2-pollices diametro.

Folia ovata vel oblongo-ovata basi rotundata
subtus albo-tomentosa. Calyces imberbes . 1. P. INCANUM.

Folia ovato-oblonga basi angustata subtuspallida.
Calyces barbati . 2. P. TULLIA.

Verticillastri vix pollicem diametro. Folia angusta.

Folia acuta basi rotundata glabra vel subto-
mentosa rigida . 3. P. ARISTATUM.

Folia acuta basi angustata viridia glabra vel
pubescentia rigida . 4. P. TORREI.

Folia obtusa mollia glabra vel subtomentosa . 5. P. HYSSOPIFOLIUM.

SECT. II. BRACHYSTEMUM. *Calycis dentes breves, æquales, mutici. Verticillastri parvi, terminales, plerumque capituliformes, rarius laxiusculi, subpaniculati. Folia plerumque sessilia.*

Verticillastri densissimi capituliformes.

Folia ovato-lanceolata superiora cano-tomentosa 6. P. MUTICUM.

Folia lanceolata et caules pilosi . 7. P. PILOSUM.

Folia lanceolata subintegerrima viridia subglabra 8. P. LANCEOLATUM.

Folia linearia integerrima glaberrima . 9. P. LINIFOLIUM.

Verticillastri laxi corymboso-paniculati . 10. P. NUDUM.

SECTIO I. TULLIA.

Calyx ovato-tubulosus, subbilabiatus, dentibus sæpius subulato-aristatis. Verticillastri pauci, ampli, sæpe laxi cymis ramosissimo-multifloris. Bractæ exteriores foliaceæ, interiores subulatæ. Folia petiolata.

1. P. INCANUM (Mich. Fl. Bor. Amer. 2. 7), foliis breviter petiolatis ovato-oblongis acutis remote serratis basi rotundatis pubescentibus subtus albo-tomentosis, verticillastris multifloris densis cymosis, bracteis linearibus vel exterioribus lanceolatis, dentibus calycinis acutis subaristatis subæqualibus.

Clinopodium incanum. Linn. Sp. 822. Dill. Hort. Elth. 1. 87. t. 74.

Origanum incanum. Walt. Fl. Car. 165?

Hab. in America boreali: in arvis et fruticetis a Canada *Gouldie!* et Novo Eboraco *Torrey!* ad Carolinam *Pursh!* *Wray!* et Alabama *Drummond!* (*h. s. sp.*)

Caulis erectus, ramosus, ultrapedalis, cano-pubescent. Folia sesquipollicaria, utrinque pubescentia et subtus tomento brevi subfloccoso candida, supra viridia vel superiora candida, floralia conformia at minora, longius petiolata et basi magis angustata. Verticillastri in apice ramorum 2-3, diametro 1-1½ poll., pedunculis utrinque dichotomis laxiusculi. Flores numerosissimi. Bracteæ exteriores lineari-spathulatae, petiolatae, interiores lineari-subulatae, omnes incanae, subulato-aristatae, apice setis mollibus paucis saepius barbatae, calyce sublongiores. Calyx tubulosus, incanus, 13-nervius, intus glaber, dentibus lanceolatis acutis vix bilabiatis, apice saepius setis 1-2-aristatis. Corollæ tubus calycem æquans, labium superius suberectum integrum basi parum angustatum planum, inferius patens, lobo medio longiore latiore subconcavo integro, faux intus pilosa. Stamina exserta, divergentia, 2 inferiora longiora. Ovaria connata, apice attenuata, appendice paleaceo acuminata. Stylus exsertus, lobis subulatis, superiore dimidio brevior. Achenia ovata, subcompressa, tuberculosa, rugosa.

2. *P. TULLIA*, foliis petiolatis oblongis acutis subserratis basi angustatis utrinque pubescentibus subtus pallidis, verticillastris multifloris cymosis, bracteis linearibus exterioribus oblongis aristatis, calycibus bilabiatis, dentibus acutis subaristatis, corollis intus glabris.

Tullia pycnanthemoides. Leavenworth! in Sillim. Amer. Journ. of Science, 20. 343. t. 5.

Hab. in America boreali: in Tennessee orientali *Leavenworth!* in civitatibus septentrionalibus *Fraser!* (*v. s. sp. in herb. Lindley, et flores tantum in herb. Torrey ex Leavenworth.*)

Caulis erectus, ramosus, ultrapedalis, pubescens. Folia 2-pollicaria et ultra, pubescentia tenui, supra viridia, subtus pallida vel subcanescentia, floralia conformia. Verticillastri in apice ramorum 2-3, diametro 1½-2 poll. laxi, pedunculis utrinque elongatis dichotomis. Flores numerosissimi. Bracteæ exteriores lineari-oblongae, utrinque longe angustatae, interiores lineari-subulatae, omnes aristatae, apice setis longis mollibus barbatae. Calyces leviter tomentoso-pubescentes, dentibus lanceolatis ut bracteæ aristato-barbatis, 3 superioribus in labium superius basi coalitis. Corollæ tubus calycis tubo paullo longior, labium superius integrum, inferioris lobus intermedius emarginatus. Faux intus glabra. Stamina saepius exserta, interdum inclusa, substerilia. Ovaria submutica. Achenia ovoidea, trigona, minutissime punctulato-rugosa.

3. *P. ARISTATUM* (Mich.! Fl. Bor. Amer. 2. 8. t. 33), foliis breviter petiolatis oblongis acutis subserratis basi rotundatis utrinque glabris vel vix tomentosis, verticillastris multifloris densis, bracteis acutissimis extimis oblongis intimis subulatis, calycis dentibus æqualibus acutis subaristatis, corollis intus pubescentibus.

P. verticillatum. Pursh! Fl. Amer. Sept. 2. 410. excl. syn. Mich.

Origanum clinopodioides. Walt. Fl. Car. ex Pursh l. c.

β? ramis foliisque superioribus tenuissime tomentosis.

Hab. in America boreali: in Carolina *Bosc.!* a Marylandia ad Carolinam superiorem *Michaux!* (*v. s. sp. in herb. Vahl. et Lamb.*)

Herba pedalis, rigida, parum ramosa, glaberrima, pallide viridis vel in var. β subcanescent, tenuissime tomentosa. Folia 1½-2-pollicaria, rigida, venosa, inferiora saepius serrata, superiora integerrima. Verticillastri pauci, 6-9 lin. diametro, floribus subsessilibus. Calyces tubulosi, striati, dentibus subulatis bracteisque rigidis. Corolla vix calyce longior. Stamina e tubo breviter exserta, labiis breviora.

4. *P. TORREI*, foliis breviter petiolatis oblongo-lanceolatis linearibusve acutis vix serratis basi longe angustatis glabriusculis, verticillastris densis subcorymbosis, bracteis oblongis subulatisve aristatis, calycis dentibus subæqualibus subulatis, corollis intus pubescentibus.

P. virginicum. Nutt. Gen. N. Am. 2. 33? non *Brachystemum virginicum* Mich.

Hab. in America boreali: in civitate New York prope Princeton *Torrey!* (*h. s. sp. comm. a cl. Torrey.*)

Caulis 1-2-pedalis, rigidus, strictus, parum ramosus, pubescens nec cano-tomentosus. Folia 1-2½-pollicaria, viridia, venosa, utrinque ad venas tenuiter pubescentia. Verticillastri semipollicem diametro. Calyces et bracteæ molliter villosi. Stamina exserta.

5. *P. HYSSOPIFOLIUM*, foliis subsessilibus oblongo-lanceolatis linearibusve obtusis subintegerrimis glabris vel tenuiter tomentosis, verticillastris paucis multifloris laxiusculis, bracteis subulatis aristatis extimis oblongis, calycis dentibus subæqualibus subulatis rigidis, corollis intus subglabris.

P. aristatum. Pursh! Fl. Amer. Bor. 2. 409. non Mich.

Hab. in America boreali: in Virginia *herb. Hooker!* Carolina *Bosc.!* Georgia *Torrey!* Louisiana *Drummond!** (*v. s. sp. in herb. Vahl., Hooker, et Lambert, et h. s. sp. a cl. Drummond lect.*)

Herba 1-1½-pedalis, rigida, stricta, parum ramosa, tomento tenuissimo sæpius canescens, cæterum glaberrima. Folia pollicaria, venosa, minus rigida quam in *P. aristato*, rarissime subserrata, in axillis sæpe subfasciculata. Verticillastri pauci circiter pollicem diametro, bracteis calycem subexcedentibus aristatis. Flores *P. aristatæ.*

SECTIO II. BRACHYSTEMUM.

Calyx ovatus, dentibus brevibus æqualibus. Verticillastri densi, numerosi, capituliformes, fere omnes terminales, paniculati. Bracteæ oblongæ, lanceolatæ vel subulatæ, adpressæ. Folia plerumque sessilia.

6. *P. MUTICUM* (Pers. Syn. 2. 128), pubescens caule superne paniculato, foliis sessilibus ovato-lanceolatis acutis subserratis basi rotundatis rigidis supremis utrinque candidis, verticillastris densissimis capitulatis, bracteis ovato-lanceolatis, calycibus obtuse subæqualiter dentatis, corollæ fauce intus villosa.

Brachystemum muticum. Mich. Fl. Bor. Am. 2. 6. t. 32.

Satureia virginiana. Linn.! Herb. an ejusd. Spec. 793?

Thymus serratus. Poir. Dict. 7. 653.

Hab. in America boreali: in Carolina superiore *Michaux*, ad Saint Louis et West Chester *Drummond!* in Arkansa *Nuttall!* (*h. s. sp.*)

Caulis erectus, ramosus, basi uti folia inferiora viridis, villosus, pubescens vel subglaber, apice paniculatus, uti folia superiora et verticillastri candide tomentosus.

* Drummond's, as well as the Virginia specimens, are old, and have a different appearance, but yet are most probably referable to this species.

Folia nunc omnia integerrima, inferiora sæpius serrata. Verticillastri vix semi-pollicem diametro in apice cujusque rami 1-2, numerosi, paniculati. Flores sessiles. Calyces uti bracteæ cano-pubescentes, 13-nervi, dentibus brevibus ovatis, muticis, subæqualibus maturatione conniventibus. Corolla alba, labio inferiore punctis purpureis notato, extus pubescens; faux intus breviter villosa, lobi glaberrimi, rotundati, omnes integerrimi, subæquales vel supremo erecto paullo longiore. Stamina faucis inserta, lobis corollæ breviora. Ovaria connata vix appendiculata. Stylus apice æqualiter bifidus. Achenia oblonga, lævia.

7. *P. PILOSUM* (Nutt. Gen. N. Amer. 2. 33).

Hab. in America boreali: in vallibus Kentucky et Tennessee *Nuttall*, in incultis prope St. Louis *Beck*.

“Caulis 18-20-pollicaris, pilosus, apice parum ramosus. Folia lanceolata, subtus pilosa venis prominentibus obscure denticulata. Bracteæ longitudine calycis cano-pubescentes. Capitula majora quam in *P. lanceolata*.”—*Beck. in Sillim. Amer. Journ. of Scien.* 14. 117.

“Caulis et folia subtus plus minusve pilosi. Folia lanceolata, subintegerrima, sessilia. Capitula magna terminalia. Bracteæ lanceolatæ, calycesque villosi, mutici. Corolla pubescens. Stamina exserta. Affinior *P. virginico* quam *P. mutico*. Caulis apice subramosus. Bracteæ calyce breviores, acutæ at non aristatæ. Dentes calycinis minuti, faux corollæ et superficies externa pubescentes immaculatæ. Achenia glabra. Odor et sapor *Menthæ Pulegii*.”—*Nutt. l. c.*

8. *P. LANCEOLATUM* (Pursh Fl. Amer. Sept. 2. 410), caule superne paniculato angulis pubescentibus, foliis sessilibus ovato-lanceolatis lanceolatisve integerrimis basi rotundatis rigidis glabriusculis, verticillastris densis numerosis villosis, bracteis ovato-lanceolatis, calycibus obtuse subæqualiter dentatis, corollæ fauce intus villosa.

α latifolium.

Brachystemum verticillatum. Mich. Fl. Bor. Am. 2. 6. t. 31.

Thymus verticillatus. Poir. Dict. 7. 653.

Pycnanthemum verticillatum. Pers. Syn. 2. 128.

β angustifolium.

Nepeta virginica. Willd. Spec. 3. 56.

Brachystemum virginicum. Mich. Fl. Bor. Amer. 2. 6?

Pycnanthemum virginicum. Pers. Syn. 2. 128.

Brachystemum lanceolatum. Willd. Enum. 2. 623.

Thymus lanceolatus. Poir. Dict. Suppl. 5. 305.

Hab. in America boreali; in montibus Pennsylvaniae usque ad Carolinam superiorem *Michaux*, ad Boston herb. *Hooker!* in montibus petrosis *Bird!* (*h. s. sp.*)

Affinis *P. mutico*. Differt caule glabriore, foliis constanter integerrimis omnibus viridibus. Caulis sæpe purpurascit. Folia nunc glaberrima, nunc villosa. Calyces et bracteæ potius villosæ quam tomentosæ. Flores omnino *P. mutici*, sæpius punctatæ, interdum impunctatæ; var. *β* non nisi foliis angustioribus differre videtur, nec meo sensu ut species propria habenda.

9. *P. LINIFOLIUM* (Pursh! Fl. Amer. Sept. 2. 409), glabrum caule superne paniculato, foliis sessilibus linearibus integerrimis rigidis, verticillastris densis numerosis terminalibus subglabris, bracteis linearibus acutis rigidis, dentibus calycinis lanceolato-subulatis brevibus acutis rigidis, corollis ad faucem intus villosis.

Thymus virginicus. Linn. Syst. 453.

Brachystemum linifolium. Willd. Enum. 623.

Koellia capitata. *Mærch. Meth.* 408.

Pycnanthemum tenuifolium. *Schrad. in Steud. Nom. Bot.* 669?

Origanum flexuosum. *Walt. Fl. Car.* 165. *ex Pursh.*

Hab. in America boreali: in siccis et pratis montosis a Nova Anglia ad Carolinam *Pursh!* in Georgia et ad Novum Aurelianum *herb. Hooker!* ad Saint Louis *Drummond!* (*h. s. sp.*)

Habitus fere *P. mutici*. Caules densissime foliosi, glaberrimi. Folia subtrinervia, margine subrevoluta, anguste linearia. Capitula præcedentium, sed calyces et bracteæ fere glabræ. Dentes calycini uti bracteæ apice subcallosi, acuti, rigidi. Corollæ lobi oblongi, integri. Stamina e tubo breviter exserta. Stylus subæqualiter bifidus. Achenia oblonga, minutissima, punctulato-rugosa vel fere lævia.

10. *P. nudum* (Nutt. Gen. N. Amer. 2. 34), glabrum pallide virens, caule subsimplici stricto, foliis sessilibus ovato-oblongis obtusis integerrimis basi rotundatis, verticillastris laxis terminalibus corymboso-paniculatis glabris, bracteis exterioribus lanceolato-linearibus interioribus brevissimis subulatis, corollis intus pubescentibus.

Hab. in America boreali: in montosis Carolinæ et Georgiæ *Nuttall, Le Conte!* (*v. s. sp. in herb. Torrey.*)

Caulis 1-2-pedalis, strictior et simplicior quam in cæteris speciebus. Folia erecta, margine subrevoluta, vix pollicaria, superiora minora remota. Corymbus densus. Bracteæ exteriores laxæ, calyces æquantes, glabræ, acutæ, nec aristatæ. Calyces tubulosi basi glabri, dentibus brevibus pubescentibus. Corolla pubescens. Stamina e tubo exserta, limbo breviora.

Species e genere excludendæ.

P. MONARDELLA Mich. = *Monardella Caroliniana*.

P. MONTANUM Mich. = *Monardella montana*.

XXXVI. MONARDELLA.

Pycnanthemum sp. *Mich. et Auct.*

Calyx ovato-tubulosus, sæpe elongatus, 10-13-nervius, 5-dentatus, dentibus brevibus subæqualibus rectis, fauce intus nuda. Corolla tubo calycem æquante vel breviter exserto, fauce intus glabra, limbo subbilabiato, labio superiore bifido, inferiore trifido, lobis omnibus oblongis linearibusve planis subæqualibus. Stamina 4, subæqualia, vel inferiora longiora, recta, divergentia, exserta. Antheræ biloculares, loculis parallelis, demum divergentibus vel divaricatis. Stylus apice brevissime bifidus, stigmatibus minutis. Achenia sicca.—Herbæ perennes. Verticillastri magni, subglobosi, bracteis latis suffulti, solitarii, terminales.

The species are all North American, and very different from *Pycnanthemum* in habit, although nearly allied to that genus in characters.

1. *M. MONTANA*, caule erecto, foliis sessilibus ovato-lanceolatis acutis serratis basi rotundatis, verticillastris dense globosis magnis,
April 1834.

bracteis exterioribus lato-ovatis acutis, calycibus tubulosis subæqualiter dentatis.

Pycnanthemum montanum. Mich. ! *Fl. Bor. Amer.* 2. 8.

Hab. in Americæ borealis altis montibus Carolinæ Michaux ! (v. s. sp.)

Folia sessilia et verticillastri magni *Monardæ*.

2. M. CAROLINIANA.

Pycnanthemum Monardella. Mich. *Fl. Bor. Amer.* 2. 8. t. 34.

Hab. in Americæ borealis altis montibus Carolinæ Michaux, in monte Saluda Elliott.

"P. hirsutulum, foliis abrupte petiolatis, subcordato-ovalibus, serratis, capitulo bracteis omnibus coloratis involucrato, bracteolis ciliatis, calycibus summitate barbatis.

"Habitus *Monardæ fistulosæ*. Stigmatis lacinia altera brevissima."—Mich. l. c.

"Caulis 2-3 pedalis. Folia, petiolo ultrapollinari, basi obtusissima potius quam cordata, leviter acuminata, profunde serrata. Bracteæ calyce duplo longiores. Corolla parva, pallide rubra."—Elliott *Bot. S. Carol. et Georgia*, 2. 81.

Species dubia. P. *Monardella* Pursh ! in Herb. Lamb. *Monardæ fistulosæ* simillima est, sed corollæ desunt ; sic etiam in icone Michauxiana ; plantam Elliottianam non vidi.

3. M. ODORATISSIMA, caule procumbente, foliis subsessilibus oblongo-lanceolatis utrinque angustatis integerrimis canis, verticillastris dense globosis magnis solitariis, bracteis exterioribus lato-ovatis obtusissimis coloratis, calycibus tubulosis elongatis subæqualiter dentatis.

Hab. in America boreali-occidentali : in petrosis ad flumen Columbia et in rupibus alpestribus in montibus White Mountains dictis Douglas ! (v. s. sp. in herb. Hook. et Soc. Hort. Lond.)

Caulis suffruticosus, humilis, procumbens, ramosus, basi purpurascens et tenuissime cano-tomentosus. Folia subsessilia, parva (vix semipollinaria), ovato-oblonga vel oblongo-lanceolata, obtusa, integerrima, margine subrevoluta, basi angustata, subtus nervosa, utrinque brevissime cano-tomentosa, floralia bracteis subconformia. Verticillastri solitarii, terminales, floriferi diametro fere bipollicares. Bracteæ exteriores lato-ovatae, membranaceæ, obtusæ, venosæ, molliter villosæ, calycibus æquales, interiores parvæ. Flores numerosissimi. Calyces ut in *Monardis* tubulosi, dentibus brevibus, ovatis, obtusiusculis, apice villosi, sed fauce intus subnuda. Corollæ roseæ (?), tubus breviter exsertus, apice parum dilatatus. Limbi laciniae 3 lin. longæ. Stamina, præsertim inferiora, parum longiora, uti corollæ et stylus, glabra. Antheræ parvæ, globosæ, loculis parallelis vel parum divergentibus. Achenia non vidi.

4. M. UNDULATA, caule basi procumbente, ramis adscendentibus, foliis oblongo-linearibus obtusis margine undulato-crispis basi in petiolum brevem angustatis utrinque viridibus glabris, verticillastris dense globosis magnis solitariis, bracteis exterioribus lato-ovatis acutis membranaceis muticis, calycibus tubulosis elongatis subæqualiter dentatis muticis.

Hab. in California septentrionali Douglas ! (h. s. sp. e Mus. Soc. Hort. Lond.)

Caulis basi perennis vel suffruticosus. Rami 4-12-pollicares, purpurascens, glabri vel tenuiter pubescentes. Folia crassiuscula, 1-nervia, ad axillas sæpe fasciculata, $\frac{1}{2}$ -1-pollicaria. Capitula et flores M. *odoratissimæ*, at bracteæ glabriores acutiores. Calyces basi membranacei, apice villosi.

5. M. DOUGLASSII, caule basi procumbente, foliis petiolatis lanceolatis linearibusve utrinque angustatis viridibus pubescentibus, verticil-

lastris dense globosis magnis solitariis, bracteis exterioribus ovato-lanceolatis calyces superantibus aristato-acuminatis, calycibus ovato-tubulosis inflatis villosis dentibus subæqualibus aristatis.

Hab. in California septentrionali *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Herba pubescens, semipedalis, divaricato-ramosa, rami purpurascens. Folia pollicaria, subplana. Capitula pollicem diametro. Bracteæ exteriores basi membranaceæ, venis valde prominentibus, apice virides uti dentes calycini subpungentes. Laciniae corollinæ et genitalia breviora quam in *M. odoratissima* et *undulata*.

XXXVII. AMARACUS.

Amaracus. *Mœnch.*

Origanum sp. *Linn. et Auct.*

Calyx ovato-campanulatus, basi 13-nervius, limbi labio superiore elongato integro erecto, inferiore truncato subnullo vel brevissime bidentato, fauce intus nuda. Corollæ tubus e calyce exsertus, bracteas imbricatas æquans, limbo bilabiato, labio superiore erecto emarginato subplano, inferiore patente trifido, lobis subæqualibus integris. Stamina 4, erecta, adscendentia, vix distantia, exserta, didynama, inferioribus longioribus. Filamenta glabra. Antheræ biloculares loculis distinctis divergentibus divaricatisve. Styli lobus superior brevior; stigmata minuta. — Suffrutices. Folia integerrima. Flores in spiculis oblongis aggregati. Bracteæ orbiculatæ membranaceæ, coloratæ, laxè imbricatæ, calyce multo longiores, tubum corollæ æquantes.

Two Grecian plants form this genus, which has been usually united to *Origanum*, on account of the large bracts; these, however, are not so closely imbricated as in *Origanum*, and the *Amaraci* also differ materially from that genus in the calyx and corolla, as well as in habit. The direction of the stamina would remove the genus from *Satureineæ*, but in other characters and habit they are more nearly allied to this than any other tribe; besides, though ascending and usually approximate in pairs, they project far beyond the corolla, and the lower ones often diverge.

1. *A. Dictamnus*, foliis subsessilibus utrinque ramisque dense lanatis.

Origanum Dictamnus. *Linn. ! Spec. 823. Bot. Mag. 9. t. 298.*

Amaracus tomentosus. *Mœnch. ex Steud. Nom. Bot. 572.*

Hab. in Cretæ rupibus nec alibi *Sibthorp!* (*h. s. c. et v. s. sp. in herb. Sibthorp, Banks, &c.*)

Suffrutex procumbens pedalis, ramis adscendentibus, uti folia, lana albida subfloccosa indutis. Folia sessilia vel breviter petiolata, 6-10-linearia, lato-ovata, obtusa, integerrima, basi rotundata, crassa, mollia, subtus penninervia nervis prominentibus, floralia parva glabriora. Spicæ breviter pedunculatæ, pollicares vel parum longiores. Bracteæ 3-4-lineares, laxè imbricatæ, sessiles, suborbiculares, integerrimæ, glaberrimæ, membranaceæ, exteriores tenuiter 5-nerviæ, apice coloratæ. Corolla ecalcarata. Stamina longe exserta.

2. *A. Tournefortii*, foliis sessilibus orbiculatis basi subcordatis ramisque glaberrimis ciliatisve.

Origanum Tournefortii. *Ait. Hort. Kew. ed. 1. 2. 311. Sibth. et Sm. ! Fl. Gr. 6. 56. t. 569.*

O. calcaratum. *Juss. ex Steud. Nom. Bot. 572.*

Hab. in Archipelagi Græci ins. Amorgos in rupibus prope divæ Virginis cœnobium *Sibthorp !* in Oriente *Tournefort !* (*h. s. c. et v. s. sp. in herb. Banks et Sibthorp.*)

Præter glabritiem differt ab *A. Dictamno* habitu, foliis minoribus latitudine longitudinem subæquantibus, venis vix prominentibus, spicis densioribus, bracteis latioribus, genitalibus parum brevioribus. Habitus *Rhodiolæ roseæ*. Caules e basi crassa lignosa numerosi, simplices, vix semipedales. Spiculæ paucæ, oblongæ, subsessiles, subnutantes. Calycis labium inferius distincte bidentatum, dentibus obtusis ovatis. Corolla sub fauce calcare brevi obtuso aucta. Stamina exserta.

XXXVIII. ORIGANUM.

Origanum sp. *Linn. et Auct.*

Calyx ovato-tubulosus, 10-13-nervius, striatus, dentibus 5 æqualibus vel 3 superioribus vix longioribus; faux intus villosa. Corolla tubo calycem æquante vel vix eo longiore, limbo subbilabiato, labio superiore suberecto emarginato, inferiore patente trifido, lobis subæqualibus. Stamina 4, exserta, distantia, subdidynama, inferioribus longioribus. Stylus apice subæqualiter bifidus. Stigmata minuta. Achenia sicca, læviuscula.—Herbæ. Folia integerrima, vel subdentata. Flores in spiculis cylindricis oblongisve aggregati. Bracteæ imbricatæ, coloratæ, calyces obtegentes, at laxiores quam in *Majorana*.

The *Origana* are chiefly found in the Mediterranean region of the old world. The *O. vulgare* extends over a great part of Europe and the temperate parts of Asia; and the *O. laxiflorum* comes from the Himalayan mountains.

1. *O. SIPYLEUM* (Linn. ! Spec. 823), caule decumbente apice paniculato-ramoso, foliis breviter petiolatis integerrimis inferioribus subrotundis hispido-lanatisve superioribus ovatis glaberrimis glaucis, spiculis oblongis solitariis ternisve nutantibus, bracteis laxis ovatis coloratis, calycis glaberrimi dentibus 3 superioribus longioribus.

O. hybridum. *Mill. ! Dict. n. 12.*

O. sipyleum. *Sibth. et Sm. ! Fl. Gr. 6. 57. t. 570.*

Hab. in Oriente et Græcia: in monte Sipylo Phrygiæ inter Smyrnam et Bursam *Sibthorp !* prope Aleppo *Russell !* in monte Delphi *Sibthorp !* (*h. s. c. et v. s. sp. in herb. plur.*)

Suffrutex basi procumbens; rami steriles breves, adscendentes, villosissimi, foliis rotundioribus crassis utrinque lanatis, floriferi pedales sesquipedalesve, divaricato-ramosi, glabri, foliis remotis parvis paucis subnerviis acutiusculis basi rotundatis. Folia floralia parva. Bracteæ duplo majores, ovatæ, membranaceæ, obtusæ, rubentes ut in *Amaracis*, laxiusculæ, dimidio minores quam in *A. Dictamno*. Calyx sessilis, bractea dimidio minor, tubuloso-campanulatus, glaber, membranaceus, dentibus obtusis, 3 superioribus parum longioribus, 2 inferioribus intus villosis. Corollæ tubus æqualis, calycem æquans. Limbus bractea subbrevior. Genitalia exserta. Stylus subæqualiter bifidus.

2. *O. COMPACTUM*, humile subsimplex, foliis subsessilibus ovatis obtusis vix serratis, spicis dense capitatis cylindricis, bracteis elongatis lanceolatis acutis coloratis, calyce duplo longioribus.

O. glandulosum. *Salzm. ! Pl. Exs. non Desf.*

Hab. in Africa Mediterranea : prope Tanger *Salzmann ! (h. s. sp. a cl. Salzm. lect. et v. s. sine nom. in herb. Linn.)*

Caules e basi suffruticoso, pauci, semipedales, erecti vel adscendentes, simplices. Folia minora et rigidiora quam in *O. vulgari*. Spiculæ 6-12 fere pollicares, subsessiles, in capitulum terminalem oblongum approximatae. Bracteæ paullo majores quam in *O. vulgari*, et omnes acutæ. Calyx extus glaber, dentibus intus barbatis, superioribus parum longioribus.

3. *O. VULGARE* (Linn. ! Spec. 824), erectum villosum, foliis petiolatis lato-ovatis obtusis subserratis basi late rotundatis utrinque viridibus, spiculis oblongis cylindricisve glomeratis corymboso-paniculatis, bracteis ovatis obtusis coloratis, calyce dimidio ad duplo longioribus.

O. vulgare. *Hook. Fl. Lond. v. 3. Ic.*

O. stoloniferum. *Bess.*

O. orientale. *Mill. ! Dict. n. 5.*

β *prismaticum*, (*Gaud.*) spicis fructiferis elongatis prismaticis.

O. heracleoticum. *Reichb. Fl. Germ. Exc. 313. non Linn.*

O. creticum. *Linn. ! Spec. 823.*

O. macrostachyum. *Link. Handb. 468.*

O. megastachyum. *Link. Enum. Hort. Berol. 2. 114.*

O. hirtum. *Link. Enum. Hort. Berol. 2. 114 ?*

O. latifolium. *Mill. ! Dict. n. 3.*

γ *humile*, vix semipedale, glabriusculum, foliis angustioribus et spiculis parvis numerosis corymbosis.

O. humile. *Poir. Dict. Suppl. 4. 186. Mill. ! Dict. n. 4.*

δ *virens*, bracteis vix coloratis sæpius pubescentibus.

O. virens. *Hoffm. et Link. Fl. Port. 1. 119. t. 9.*

O. oblongatum. *Link. Enum. Hort. Berol. 2. 114 ?*

O. thymiflorum (*O. vulgaris* β). *Reichb. Fl. Germ. Exc. 313.*

Hab. in Europa, in Africa mediterranea, et in Asia media ! ad vias et sepes in sylvis ruderatis montosisque in Scotia ! Anglia ! Suecia, Rossia Europæa, Dania ! Germania ! Gallia ! Italia ! Hispania ! Lusitania, Africa boreali usque ad ins. Canarienses ! in insulis Mediterraneis, in Oriente ! et regione Tauro-Caucasico usque ad mare Caspicum *Meyer !* in Rossia Asiatica usque ad jugum Altaicum *Ledebour !* et Pire Punjal ad limites vallis Cashmeriani *Royle !* etiam in America septentrionali ! vulgaris a Pennsylvania ad Virginiam *Pursh*, an indigena ? Var. β occurrit præcipue in regione Mediterranea, δ in umbrosis regionis Asiaticæ, γ verosimiliter in hortis orta. (*v. v. et h. s. sp.*)

Planta habitu valde variabilis, nunc vix semipedalis, sæpius 1-2-pedalis. Caules complures, erecti, parum ramosi, plus minusve hirsuti, sæpe rubentes. Folia 6-9-linearia, margine dentibus obscuris notata, nervis subtus prominentibus, plus minusve villosa, rarissime subglabra. Spiculæ in corymbo terminali et ad apices ramulorum in axillis foliorum superiorum fasciculatae, nunc breves oblongæ, nunc in var. β valde elongatae (usque ad $1\frac{1}{2}$ -poll. longæ), tetragonæ. Bracteæ quadrifariam imbricatae, laxæ, at calyces obtegentes, membranaceæ, fere semper glabræ, rubentes. Calyx glaber, dentibus æqualibus. Corolla exserta, purpurascens vel rarius alba. Stamina sæpius exserta, distantia. Var. β non differt nisi spiculis elongatis. Var. γ habitu diversa est, sed mihi varietas hortensis videtur, nec unquam exemplaria sylvestria vidi. Var. δ forsan species propria est, at *O. vulgari* valde affinis.

4. *O. NORMALE* (Don ! Prod. Fl. Nap. 113), adscendens villosum, foliis petiolatis ovatis obtusiusculis basi cuneato-rotundatis utrinque

viridibus, spiculis parvis oblongis glomeratis corymboso-paniculatis, bracteis lanceolatis acutis calycem breviter superantibus.

Hab. in Indiæ Orientalis montibus Himalayensibus: in Napalia, Kamaon et Sirmore *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caules 1-2-pedales, adscendentes, villosi, apice paniculato-ramosi. Folia longius petiolata quam in *O. vulgari*, et basi cuneata, cæterum subconformia, utrinque villosula. Spiculæ breves, ovatæ vel rarius elongatæ, lanceolatæ, acutæ, numerosæ, ad apices ramorum fasciculato-corymbosæ. Bracteæ subpatentes virides pubescentes. Calyx *O. vulgari*. Corolla minor. Stamina (an constanter?) inclusa.

5. *O. HERACLEOTICUM* (Linn. Spec. 823), erectiusculum, glabrum vel villosum, glandulosum, foliis breviter petiolatis ovatis obtusis integerrimis basi late rotundatis, panicula elongata, spiculis oblongis elongatisve glomeratis, bracteis ovatis acutis viridibus pubescentibus calycem æquantibus.

Origanum glandulosum. Desf. Fl. Alt. 2. 27.

O. Smyrnæum. Sm.! Fl. Gr. 6. 57. t. 571. non Linn.

O. creticum. Sieb.! Pl. Exs. et auct. plur. non Linn.

β humile.

O. parviflorum. Durv.! Enum. Pl. Archip. in Mem. Soc. Linn. Par. 327.

Hab. in regione Mediterranea australi: in Atlante prope Mascar *Desfontaines*, in Calabria *Tenore*, ad Tergestum *Endlicher!* in montibus Græciæ haud rara *Sibthorp!* in Archipelago Græco *Sieber!* *Zuccarini!* Creta *Sieber!* circa Smyrnam et Byzantium *Sibthorp!* et Odessam *Durville!* (*h. s. sp.*)

Species valde variabilis exemplaribus sæpe habitu quam maxime dissimilaribus, sed constanter recognoscenda bracteis vix calyce longioribus, spiculis laxis, et floribus parvis. Caules plerumque 1-2-pedales, plus minusve villosi, nunc vero (in var. *β*) vix 3-4-pollicares, et fere glabri. Folia pallide virentia, glabra, vel pubescentia, nervis sæpe hispidulis. Spiculæ numerosæ, pedunculatæ, nunc paucifloræ oblongæ, nunc sesquipollicares. Bracteæ laxè imbricatæ, sæpe deciduæ, rarissime glabræ, sæpius pubescentes. Flores *O. vulgari* dimidio minores. Calyx æqualis dentibus obtusiusculis. Corolla alba. Stamina plerumque exserta, interdum corolla subbreviora.

6. *O. LAXIFLORUM* (Royle! in Hook. Bot. Misc. 3. 376), caule procumbente villosa, foliis breviter petiolatis lato-ovatis obtusis subintegerrimis basi rotundatis utrinque viridibus pubescentibus, bracteis acutis calyce sublongioribus viridibus floribusque laxissime spicatis.

Hab. in India Orientali: ad Nagkanda in montibus Himalayensibus *Royle!* (*h. s. sp. comm. a cl. Royle.*)

Folia *O. vulgari*, sed caule procumbente, et præsertim spicis laxis nec imbricatis distincta. Flores minores etiam quam in *O. heracleotico*, inferiores solitarii distantes. Bracteæ vel potius folia floralia uti caulina viridia et pubescentia, patula nec imbricata. Spiculæ vix pollicares, plurimæ ad apicem caulis trichotomo-paniculatæ.

7. *O. MAJORICUM* (Cambess. Enum. Pl. Balear. 124).

Hab. in aridis insulæ Balearicæ Majoris prope Ineam *Cambessedes*.

“*O.* caule laxè tomentoso, foliis ellipticis pubescentibus, floribus fasciculatis, calyce bilabiato, corolla bilabiata, labio superiore emarginato, inferiore trifido.

“Caulis herbaceus, bipedalis et ultra, teres, ramosus, tomento laxo vestitus, folia inferiora 8-10 lin. longa, 5-6 lin. lata, petiolata, petiolo 4-5 lin. longo, superiora multo breviora, sessilia, omnia ovato-elliptica, utrinque, præsertim subtus, pilis brevissimis albidis scabriuscula. Flores ad apices ramorum spicati, spicis brevissimis

conglobatis, singuli basi instructi bractea foliis superioribus omnino conformi florem subæquante. Calyx bilabiatus, glandulosus, tubo infundibuliformi glabriusculo 10-nervio, labio superiore profunde tridentato, dentibus ovatis obtusiusculis ciliatis, inferiore triente brevior bipartito, segmentis obtusiusculis ciliatis, fauce pilis brevibus clausa. Corolla bilabiata, rosea, puberula, tubo calycem paullo superante, labio superiore brevissime emarginato, inferiore trifido, segmentis lateralibus labium superius æquantibus, medio triente longiore, fauce nuda. Stamina summo tubo inserta, filamentis brevissimis, antheris subrotundis, basi brevissime emarginatis, infra medium dorsum insertis. Ovarium subrotundum, glabrum, apice 4-lobum. Stylus corollam paullulum superans, filiformis, apice dilatatus, parte dilatata brevi bipartita."—*Cambess. l. c.*

An *Thymus Richardi Pers.*?

Species dubiæ.

O. PUNCTATUM (Poir. Dict. Suppl. 4. 186).

β foliis angustioribus lanceolatis.

Hab.

"*O. foliis ovato-lanceolatis punctatis glabris, capitulis sphaericis subpubescentibus, bracteis acutis calyce longioribus.*

"*Caules erecti, glabri, ramosi, tetragoni. Folia subsessilia, acuminata, integerrima, pallide virentia, nervosa, pollicem et ultra longa, punctis parvis nigrescentibus conspersa; in var. β angustiora, lanceolata. Pedunculi breves. Spiculæ globosæ, pisi magnitudine. Bracteæ lanceolatæ, angustæ, acutissimæ, subpubescentes, calyce parum longiores. Corolla albida.*"—*Poir. l. c.*

An *O. heracleotici* specimina juniora?

O. VESTITUM (Clarke Trav. 2. 451).

Hab. in Palæstina prope Cana *Clarke.*

"*O. foliis subcordato-ovatis, petiolatis, integerrimis, utrinque tomentosis, mollissimis, spicis subrotundo-ovatis pedunculatis compactis tomentosis subternis, caule suffruticoso. Planta ramosa, tomentoso-incana. Folia nervosa, 5. lin. longa, sæpius reflexa. Spicæ breves, valde tomentosæ, basi constipatæ, subternæ. Calyx bilabiatus, obovatus, fauce lanuginosus. Corolla gracilis, glanduloso-punctata. Stylus exsertus. Stigmata reflexa.*"—*Clarke l. c.*

An *Majorana crassifolia*?

O. SALVIFOLIUM (Roth. ex Steud. Nom. Bot. 572).

Species e genere excludendæ.

O. ÆGYPTIACUM Auct. = *Majorana crassifolia*.

O. ÆGYPTIACUM Linn. = Planta dubia, synonymia in Spec. 823. alia ad *Amaracum Tournefortii*, alia ad *Majoranam nervosam* referenda.

O. BENGHALENSE Burm. = *Pogostemon plectranthoides*.

O. CALCARATUM Juss. = *Amaracus Tournefortii*.

O. CILIATUM Willd. = Planta dubia verosimiliter ex ordine excludenda.

O. CLINOPODIOIDES Walt. = *Pycnanthemum aristatum*.

O. DICTAMNUS Linn. = *Amaracus Dictamnus*.

O. FLEXUOSUM Walt. = *Pycnanthemum linifolium*.

O. INCANUM Walt. = *Pycnanthemum incanum*.

O. INDICUM Roth. = *Pogostemon plectranthoides*.

O. MAJORANA Linn. = *Majorana hortensis*.

O. MAJORANOIDES Willd. = *Majorana hortensis*.

O. MARU Sm. et Auct. = *Majorana microphylla*.

O. MARU Linn. = *Majorana crassifolia*.

O. MICROPHYLLUM Sieb. = *Majorana microphylla*.

O. ONITES Linn. = *Majorana Onites*.

O. PALLIDUM Pers. = *Majorana Onites*.

O. SMYRNÆUM Linn. = *Majorana Onites*.

O. SYRIACUM Linn. = *Majorana nervosa*.

O. TOURNEFORTII Ait. = *Amaracus Tournefortii*.

O. WALLICHIANUM Benth. = *Majorana hortensis*.

XXXIX. MAJORANA.

Origanum sp. Linn. et Auct.

Majorana. Mœnch. Meth.

Calyx basi brevissime campanulatus, limbo fisso superne complanato-dilatato integerrimo orbiculato, margine basi subtus implicato, fauce intus nuda. Corolla tubo calycem æquante, limbo subbilabiato, labio superiore suberecto emarginato, inferiore patente trifido, lobis subæqualibus. Stamina 4, exserta, distantia, subdidynama, inferioribus longioribus. Antheræ biloculares loculis parallelis divergentibus vel demum divaricatis. Stylus apice subæqualiter bifidus. Stigmata minuta. — *Herbæ* perennes suffruticesve, sæpius tomentoso-villosæ. Folia integerrima vel dentata. Flores in spiculis brevibus tetragonis aggregati. Bracteæ orbiculatæ, villosæ, non coloratæ, planæ, calycibus æquales, in illis accumbentes et arcte imbricatæ.

A Mediterranean genus.

1. *M. MICROPHYLLA*, suffruticosa, procumbens, ramis tenuibus glabriusculis paniculatis, foliis parvis remotis petiolatis lato-ovatis obtusis basi rotundatis utrinque albo-tomentosis, spiculis subglobosis ad apices ramorum paucis subcorymbosis.

Origanum Maru. Sibth. et Sm. ! *Fl. Gr.* 6. 59. t. 573. *Bot. Mag.* 52. t. 2605. et auct. plur. non Linn.

Origanum microphyllum. Sieb. ! *Pl. Cret. exs.*

Hab. in Cretæ montibus Sphacioticis Sieber ! Sibthorp ! (*h. s. c. et v. s. sp. in herb. plur.*)

Suffrutex procumbens, divaricato-ramosus, ramis purpurascentibus lævibus filiformibus. Folia triplo minora quam in *M. hortensi*, cæterum conformia, utrinque cano-tomentosa. Spiculæ globosæ paucæ, in corymbis parvis laxis ad apices ramorum dispositæ. Bracteæ calycesque tomentoso-villosæ, apice dense ciliatæ. Corolla *M. hortensis*.

2. *M. HORTENSIS* (Mœnch. Meth. 406), ramis glabriusculis, racemoso-paniculatis, foliis petiolatis oblongo-ovatis obtusis integerrimis utrinque cano-tomentosis, spiculis oblongis in ramulis glomeratis sessilibus.

Origanum Majorana. Linn. ! *Spec.* 824.

Origanum majoranoides. Willd. *Spec.* 3. 137.

Origanum Wallichianum. Benth. in Wall. *Pl. As. Rar.* 1. 31.

Majorana crassa. Mœnch. *Meth.* 406 ?

Origanum Onites. Lam. *Dict.* 4. 608. ex DC. *Fl. Fr.* 3. 558. non Linn.

Hab. in Africa mediterranea et Asia media : in collibus incultis prope Mascar Desfontaines, in alpibus Kamaonensibus Indiæ orientalis

Wallich! in hortis frequentissime culta et valde variabilis (*h. s. sp.? e Mus. Angl. Ind. et v. v. c.*)

Caules in hortis nostris sæpe annui, in frigidariis vel in locis natalibus perennes, basi suffruticosi. Rami duri, pedales sesquipedalesve, tetragoni, pubescentes, parum ramosi. Folia semipollicaria. Spiculæ 3-5, subsessiles ad apices caulis et ramulorum axillarium, oblongæ, tomentoso-villosæ. Bracteæ et calyces complanata, arcte imbricata. Corollæ parvæ, purpurascentes vel albæ.

Varietas? in hortis botanicis occurrit huic habitu simillima, at diversa calycibus ut in *Origanis* 5-dentatis, sed complanatis et sub bracteas imbricatis ut in *Majorana*; verosimiliter hybrida hortensis. Illam accepi a cl. Requier ex horto Avenionensi, et a cl. Audibert, sub nomine *O. heracleotici*, et sub hoc nomine in herbario Milleriano occurrit. Specimina sylvestria nunquam vidi.

3. *M. CRASSIFOLIA*, ramis tomentosiusculis racemoso-paniculatis, foliis sessilibus ovato-ellipticis crassis molliter tomentosis, spiculis oblongis in ramulis glomeratis sessilibus.

Origanum Maru. Linn.! Spec. 825. non Auct.

Origanum ægyptiacum. Auct. non Linn.

Hab. in Oriente: in Palæstina *Sieber!* *Bové!* in Creta *Linnaeus* (*h. s. sp. a cl. Bové lect.*)

Habitus *M. hortensis*, a qua differt foliis sessilibus majoribus crassis, utrinque uti calyces et bracteæ dense tomentoso-lanatis.

4. *M. NERVOSA*, erecta, ramis patentim pilosis paniculatis, foliis sessilibus lato-ovatis subintegerrimis basi rotundato-truncatis vel inferioribus subcordatis utrinque villosis, spiculis oblongis parvis in ramulis glomeratis sessilibus.

Origanum Syriacum. Linn. Spec. 824?

O. indicum Zatarhendi. Alp. et Vesl. Pl. Æg. 31. ic. 33.

Hab. in Arabiæ peninsula Sinaica *Bové!* in Ægypto *Vesling.* (*h. s. sp. a cl. Bové lect.*)

Habitus *M. hortensis*, at panicula divaricatiore et ramosior. Caulis erectus, pedalis. Folia semipollicaria vel inferiora subpollicaria, basi subcordata, forma *M. Onites*. Spiculæ numerosæ, minores et distinctiores quam in *M. hortensi*. Calyces et bracteæ *M. Onites*. Corollæ parum majores staminibus exsertis.

5. *M. ONITES*, caule erecto subsimplici hirsuto, foliis sessilibus ovatis subserratis villosulis tomentosisve, spiculis parvis ovoideis numerosis dense corymbosis.

Origanum Onites. Linn.! Spec. 824. Sibth. et Sm.! Fl. Gr. 6. 58. t. 572.

Origanum smyrnæum. Linn. Spec. 823.

Origanum pallidum. Desf.! Cat. Hort. Par. ed. 2. 395. Pers. Syn. 2. 129.

Hab. in regione Mediterranea orientali: in Dalmatia *Petter (Reichenbach)*, in Græcia australi insulisque circumjacentibus *Sibthorp!* in collibus petrosis *Astypalææ*, *Leri*, *Sami*, etc. *Durville!* in Creta *Tournefort!* *Sieber!* *Smyrnæ Fleischer!* *Troade Clarke.* (*h. s. sp.*)

Caules erecti, pedales, simplices vel rarissime subramosi, pilis longis patentibus, hirsuti. Folia semipollicaria, basi sæpissime cordata, venosa, subrugosa, nunc ad venas tantum pubescentia, nunc utrinque tomentoso-villosa. Spiculæ numerosissimæ, in corymbo terminali fere plano, 2-3 poll. diametro, dispositæ, oblongæ, 3-6 lin. longæ, villosissimæ. Bracteæ et calyces quadrifariam imbricata. Corolla *M. hortensis*, vel paullo major.

XL. THYMUS.

Thymi sp. *Linn. et Auct.*
Serpyllum. *Pers. Syn.* 2. 130.

Calyx ovatus, 13-nervius, bilabiatus, labio superiore tridentato patente, inferiore bifido, laciniis ciliatis subulatis, fauce intus villosa. Corolla tubo calyce vel bracteis imbricatis incluso, intus nudo, limbo subbilabiato, labio superiore recto emarginato subplano, inferiore patente trifido, lobis æqualibus vel medio longiore. Stamina exserta vel rarius inclusa, recta, distantia, subæqualia vel didynama, inferioribus longioribus. Antheræ biloculares, loculis parallelis vel demum divergentibus. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis.—Suffrutices vel fruticuli sæpe canescentes. Folia parva, integerrima, venosa, margine sæpe revoluta. Verticillastri pauciflori, nunc omnes remoti, nunc in spiculis laxis, densis vel imbricatis aggregati. Bracteæ minutæ. Flores purpurascentes rarius albi.

The true *Thymi* are chiefly European, extending also to some parts of the north coast of Africa, and into the temperate parts of Asia, as far as the Himalaya and Altai Mountains.

CONSPECTUS SPECIERUM.

SECT. I. MASTICHINA. *Dentes calycini omnes subulati.*

Dentes calycini tubo longiores	.	.	1. T. MASTICHINA.
Dentes calycini tubo breviores	.	.	2. T. TOMENTOSUS.

SECT. II. SERPYLLUM. *Dentes calycini superiores lanceolati. Folia floralia caulinis subconcoloria.*

Folia floralia laxa, caulinis conformia, angustiora vel vix latiora.

Caules fruticulosi suberecti.

Canescens. *Folia linearia margine revoluta* 3. T. VULGARIS.

Pubescens subspinosus. *Folia ovata, ramorum sterilium decussata* . . . 5. T. DECUSSATUS.

Rami villosi. *Folia ovata, ciliata* . . . 6. T. BOVEI.

Molliter villosus. *Folia ovato-lanceolata. Racemi secundi* . . . 13. T. LANCEOLATUS.

Caules procumbentes, ramis floriferis brevibus adscendentibus.

Pubescens. *Folia revoluta non ciliata* . . . 4. T. DIFFUSUS.

Folia plana nervosa plerumque ciliata.

Folia crassa subcordata obtusa rarissime ciliata . . . 7. T. PIPERELLA.

Folia ovato-lanceolata acuta subciliata . . . 8. T. HERBABARONA.

Folia rotundata ovata vel oblonga obtusa . . . 9. T. SERPYLLUM.

Folia oblongo-linearia rigidia plerumque 2-3-linearia . . . 10. T. ANGUSTIFOLIUS.

Folia oblongo-linearia semi-pollicaria. Rami sæpius villosi . . . 11. T. PANNONICUS.

Folia floralia caulinis multo latiora subimbricata.

Suffrutices diffusi, ramis floriferis adscendentibus.

Folia floralia ovata integerrima, caulina oblongo-linearia . . . 14. T. LINEARIS.

Folia floralia rotundato-cordata, caulina oblonga . . . 15. T. BRACTEOSUS.

Folia floralia oblongo-lanceolata subserrata, caulina oblongo-linearia . . . 18. T. VILLOSUS.

- Folia floralia cordato-ovata, caulina linearia.
 Planta glabra 16. T. STRIATUS.
 Planta hirsuta 17. T. HIRSUTUS.
 Fruticuli suberecti, ramis floriferis rigidis erectis.
 Folia margine revoluta subtus canescentia,
 floralia subcolorata 19. T. CAPITELLATUS.
 Folia plana vel complicata.
 Corolla calyce duplo triplove longior.
 Stamina exserta 22. T. CAPITATUS.
 Corolla calycem vix excedens. 20. T. NUMIDICUS.

SECT. III. PSEUDOTHYMBRA. *Folia floralia magna, membranacea, colorata.*

- Folia canescentia linearia margine revoluta 23. T. CEPHALOTUS.
 Folia plana lanceolato-linearia 24. T. CILIATUS.

SECTIO I. MASTICHINA.

Dentes calycini omnes subulati.

Sectio generi *Bystropogoni* valde affinis.

1. T. MASTICHINA (Linn. ! Spec. 827), diffusus ramosus pallide virens vel canescens, foliis petiolatis ovatis oblongisve obtusis basi angustatis nudis planis superioribus floralibusque latioribus, calycibus villosis dentibus omnibus subulatis plumosis tubo longioribus.

T. ciliatus. *Mœnch. ex Steud. Nom. Bot.* 836.

Hab. in Hispaniæ *Pavon!* Lusitaniæ *Brotero*, et Barbariæ prope Mascar et Tlemsen *Desfontaines!* incultis et arenosis. (*h. s. sp. comm. a cl. Lambert.*)

Suffrutex potius diffusus vel adscendens quam procumbens. Folia 2-5-linearia, margine sæpe hinc inde denticulo notata! juniora utrinque canescentia. Verticillastri pauci, omnes vel superiores in capitulis globosis terminalibus approximati. Bracteæ minutæ. Pedicelli breves. Calyces fructiferi, nutantes, labio superiore lato, plano; dentes basi lanceolati, in setas rigidas uti laciniae labii inferioris producti, et dense molliterque ciliati, ut capitulum molliter plumosum videtur. Corolla albida, plerumque dentibus calycinis brevior, rarius longior.

2. T. TOMENTOSUS (Willd. Enum. 2. 626?*), diffusus, ramosus, canescens, foliis vix petiolatis ovatis oblongisve obtusis basi angustatis nudis planis, junioribus cano-tomentosis, floralibus lato-ovatis subimbri-
cantibus, calycibus villosissimis dentibus omnibus subulatis plumosis tubo brevioribus.

T. marifolius. *Pourr. ex Willd. l. c.*

T. elongatus. *Link Enum.* 2. 118?†

Hab. in Hispania: in Algarbia *Masson!* (*v. s. sp. in herb. Banks.*)

A T. *Mastichina* satis distinctus videtur calycibus et inflorescentia. Capitula parva, numerosa, subglobosa.

* "T. floribus verticillato-spicatis, calycibus lanuginosis, dentibus setaceo-ciliatis, foliis ellipticis integerrimis utrinque tomentosis."—*Willd. l. c.*

† "Folia integerrima latiora ac in T. *Mastichina*. Calyx similis."—*Link l. c.*

SECTIO II. SERPYLLUM.

Dentes calycini superiores lanceolati. Folia floralia caulinis subconcoloria.

3. *T. VULGARIS* (Linn.! Spec. 825), erectus vel basi procumbens cano-pubescent, foliis sessilibus lineari- vel ovato-lanceolatis acutis margine revolutis ad axillas fasciculatis, floralibus lanceolatis obtusis, verticillastris laxis subdistantibus, calycis labii superioris dentibus lanceolatis, inferioris laciniis subulatis ciliatis.

T. tenuifolius. Mill. Dict. n. 2.

Hab. in Europæ austro-occidentali siccis aridis incultis: in Lusitania *Brotero*, Hispania! Gallia australi! Germania australi! Italia a Pedemonte! ad regnum Napolitanum *Tenore*, in Græciæ montosis *Sibthorp ex Sm. Prod.** (v. v. et h. s. sp.)

Fruticulus semipedalis, ramosissimus, tomento vel pubescentia brevi canescens. Folia 3-6-linearia, secus ramos floriferos distantia, at in axillis; ramulis abortientibus, fasciculata. Verticillastri supremi vel omnes in capitulo terminali laxè approximati, interdum 2-4 inferiores laxè 6-20-flori, remoti. Bracteæ minutæ. Flores *T. Serpylli*, at sæpius minores. Stamina nunc exserta, nunc inclusa, et tunc sæpe abortiva, corollis minoribus.

4. *T. DIFFUSUS* (Salzm.! Pl. exs.) procumbens, ramis floriferis adscendentibus cano-pubescentibus, foliis sessilibus linearibus vel lanceolato-linearibus ad axillas fasciculatis margine revolutis nudis utrinque cano-tomentosis, floralibus conformibus, verticillastris in capitulis oblongis approximatis, calycis labii superioris dentibus lanceolatis acutis, inferioris laciniis longe subulatis.

T. adscendens. Bernh.? ex Reichb. Fl. Germ. Exs. 313.

Hab. in Hispaniæ monte Gibraltarico *Salzmann! Masson!* (v. s. sp. in herb. *Lindley, Banks, &c.*)

Habitus *T. angustifoliæ*. Folia *T. vulgaris*. An hujus varietas?

5. *T. DECUSSATUS*, erectus, caulibus ramosissimis pubescentibus, foliis sessilibus ovatis obtusis margine revolutis tenuiter tomentosis, ramorum sterilium decussatis, floralibus conformibus, verticillastris paucifloris capitellatis, calycis labii superioris dentibus brevibus ovatis, inferioris laciniis subulatis ciliatis.

Hab. in Arabiæ deserto Sinaico *N. Bové!* (h. s. sp. a cl. *Bové lectum.*)

Fruticulus ramosissimus, ramis veteribus subspinescentibus. Folia 1-3-linearia, ramorum fertilium parum remota, sterilium decussatim approximata, nec in axillis fasciculata. Verticillastri ad apices ramorum pauci, 2-4-flori. Calyces subsessiles, pubescentes. Dentes labii superioris brevissimi, obtusi. Corolla parva.

6. *T. BOVEI*, erectus, ramis rigidis strictis villosis, foliis breviter petiolatis ovatis obtusis planiusculis margine petiolisque subciliatis, floralibus conformibus adpressis, verticillastris paucifloris spicatis, calycis labio superiore maximo breviter tridentato, inferioris laciniis subulatis ciliatis.

* The specimens in Sibthorp's Herbarium belong to the *T. hirsutus*.

Hab. in deserto inter Suez et Gaza *N. Bové!* (*h. s. sp. a cl. Bové lectum.*)

Fruticulus basi ramosissimus, erectus, 6-9-pollicaris. Folia fere *T. Piperellæ*. Verticillastri subsexflori, inferiores parum distantes, superiores in spica pollicari densa approximati. Calyces subsessiles villosuli, erecti, adpressi vel maturi subnutantes. Corolla *T. Serpylli*.

7. *T. PIPERELLA* (Linn. Syst. 453. non All.), suffruticosus procumbens, ramis adscendentibus rigidis pubescentibus, foliis petiolatis lato-ovatis obtusis basi truncato-subcordatis non ciliatis crassis rigidis venosis glandulosis, floralibus conformibus, calycibus glabriusculis, labii superioris dentibus brevibus ovatis, inferioris laciniis subulatis ciliatis.

T. graveolens. Sibth. et Sm.! *Fl. Gr.* 6. 61. t. 576. non Bieb.

Hab. in regione Mediterraneo australiore: in collibus incultis Barbariæ *Desfontaines*, in Hispaniæ montanis prope Buñol regni Valentini *Pavon!* in monte Parnasso *Sibthorp!* (*h. s. sp. comm. a cl. Lambert, et v. s. sp. in herb. Sibth.*)

Affinis *T. Serpyllo*. Distinguitur ramis rigidis minus diffusis, foliis crassioribus basi rotundatis, inferioribus subcordatis. Verticillastri laxi, subsexflori, versus apices ramorum 3-4 approximati. Calyces majores quam in *T. Serpyllo*. Corolla calycem paullo excedens. Stamina in speciminibus suppetentibus inclusa.

8. *T. HERBABARONA* (Lois.! *Fl. Gall.* 360. t. 9), procumbens glaber, ramis floriferis breviter adscendentibus, foliis breviter petiolatis ovato-lanceolatis acutis basi rotundatis subciliatis, floralibus subconformibus, calycis labii superioris dentibus brevibus lanceolatis, inferioris laciniis subulatis ciliatis.

T. affinis. Sieb.! *Pl. Exs.*

Hab. in Corsica *Requien!* *Sieber!* (*h. s. sp. comm. a cl. Requien.*)

Vix ac ne vix a *T. Serpyllo* distinctus foliorum forma et habitu laxiore.

9. *T. SERPYLLUM* (Linn.! *Spec.* 825), suffruticosus procumbens, ramis floriferis breviter adscendentibus, foliis breviter petiolatis ovatis basi angustatis cuneatis rotundatisve venosis margine petiolisque plus minusve ciliatis, floralibus subconformibus, calycis labii superioris dentibus brevibus lanceolato-ovatis, inferioris laciniis subulatis ciliatis.

T. exserens et T. includens. Ehrh. *Arbr.* 158.

α vulgaris, foliis minoribus, venis valde prominentibus.

T. serpyllum. Fries.! *Nov. Fl. Suec.* Hook. *Fl. Lond.* v. 3. Sm. *Eng. Bot.* 22. t. 1514.

T. sylvestris. Schreb.! et ex Reichb. *Fl. Germ. exc.* 313.

T. rigidus. Reichb.!

T. humifusus. Bernh.! ex Reichb. *Fl. Germ. exc.* 312.

T. citriodorus. Schreb. Link *Enum. Hort. Berol.* 2. 115. (*exempl. elongata parviflora.*)

T. subcitratus. Schreb. ex Reichb. *Fl. Germ. exc.* 313.

T. citratus. Dumort. *Florul. Belg.* 47.

T. lanuginosus. Schkuhr. *Handb.* 2. t. 164. (*exempl. villosa.*)

T. collinus. Bieb. *Fl. Taur. Cauc.* 3. 401. (*exempl. foliis angustioribus.*)

T. effusus. Host.! *Fl. Austr.* 2. 137.

T. procerus. Opiz!

T. Kollmunzerianus. Opiz!

T. sudeticus. Opiz ex Reichb. *Fl. Germ. exc.* 312.

- T. serratus.* Opiz ex Reichb. l. c.
T. lævigatus. Vahl! Symb. 2. 65. (Fol. cuneato-oblonga nec linearia.)*
T. arenarius. Bernh. ex Reichb. Fl. Germ. exc. 312.
T. melissoides. Fisch. ex herb. plur.
T. decumbens. Bernh. ex Reichb. Fl. Germ. exc. 313.
T. glabratus. Schult. ex Reichb. l. c. an Link?
T. deflexus. Lej. ex Reichb. Fl. Germ. exc. 312.
T. glaber. Mill. Dict. n. 6.

β *montanus*, foliis majoribus minus rigidis.

- T. montanus.* Waldst. et Kit. Pl. Rar. Hung. 1. 72. t. 71.
T. chamædrys. Fries.! Nov. Suec. ed. 1. 35. ed. 2. 197.
T. pulegioides. Reichb.! et ex ejusd. Fl. Germ. exc. 313.
T. pulegioides. Linn.! Spec. ed. 1. 592. (exempl. erectiora rigidiora.)
Cunila thymoides. Linn.! Spec. 31.
Hedeoma thymoides. Pers. Syn. 2. 131.
Ziziphora thymoides. Ræm. et Schult. Syst. 1. 209.
T. nummularius. Bieb.! Fl. Taur. Cauc. 2. 58. Bot. Mag. 53. t. 2666. (exempl. foliis majoribus latioribus.)
T. pseudoserpyllum. Reichb.!
T. majoranæfolius. Desf. Cat. Hort. Par. 74. Poir. Dict. Suppl. 5. 306.
T. ovatus. Mill.! Dict. n. 7.

Hab. in Europa tota et Asia septentrionali, α in siccis apertis, β in montanis præsertim australioribus: in Scotia! Anglia! Suecia! Lapponia *Wahlenberg*, Dania! Germania! Gallia! Hispania! Italia! Græciæ montibus *Sibthorp*! Rossia Europæa! usque ad Petropolim *Sobolewski*, in regione Tauro-Caucasico! Caspico *Meyer*! in jugo Altaico *Bunge*! et Himalayano ad Simlah et Choor *Royle*! (v. v. et h. s. sp.)

Caules basi lignosi, ramosissimi, sæpe usque ad pedem et ultra elongati; rami floriferi, plerumque vix 1-2-pollicares, rarius præsertim in var. β 4-6-pollicares, sæpius glabri, nunc vero pubescentes vel villosi. Folia 2-4-lineas longa, obtusa, vel rarissime acutiuscula, basi sæpissime angustata, et ciliis utrinque 2-6 donata, in var. β tantum basi rotundata, at in hac majora obtusissima nec cordata, glabra vel villosa, floralia minora et breviora, cæterum conformia vel rarissime parum latiora. Verticillastri 6-12-flori, plerumque pauci in capitulo terminali oblongo approximati, nunc numerosi inferioribus vel interdum omnibus remotis. Pedicelli erecti, basi bractea minuta aucti. Calyces fructiferi nutantes, ovati, tubo campanulato 13-striato, labio superiore lato-ovato, plano, subreflexo, apice breviter tridentato, inferiore ex laciniis 2 subulatis, ciliatis constante. Faux intus pilis numerosis clausa. Corolla calycem breviter superans, vel, præsertim in floribus fœmineis, dentibus calycinis brevior, purpurea rarius alba, extus glabriuscula. Stamina nunc exserta, nunc inclusa, et tunc sæpius abortiva. Stylus sæpissime exsertus.

10. *T. ANGUSTIFOLIUS* (Pers. Syn. 2. 130), suffruticosus procumbens, ramis floriferis breviter adscendentibus glabris pubescentibusve, foliis breviter petiolatis oblongo-linearibus basi angustatis venosis margine petiolisque ciliatis, floralibus subconformibus, calycibus plerumque glabris, labii superioris dentibus brevibus lanceolato-ovatis, inferioris laciniis subulatis ciliatis.

- T. acicularis.* Waldst. et Kit. Pl. Rar. 2. 157. t. 147.
T. cæspititius. Link et Hoffm. Fl. Port. 1. t. 18.? Brot. Phyt. Lus. 26. t. 11.
T. repens. Link et Hoffm. Fl. Port. ?
T. odoratissimus. Bieb. Fl. Taur. Cauc. 3. 405. (exempl. erectiora.)
T. spinulosus. Ten. Fl. Nap. Prod. 35.

* This is the *T. Serpyllum*, Forsk. Fl. Ægypt. Arab. 107. In the Banksian herbarium it exists, also from Forskahl, under the name of *T. imbricatus*, Forsk., which, according to his description and Vahl's specimen, is a *Micromeria*. See *M. Forskahlii*.

Thymbra ciliata. Ten. *Fl. Nap. Prod. Suppl.* 2. 69. *ex ejusd.* Syll. *Fl. Neap.* 269. *non Linn.*

T. nervosus. Gay! *Pl. exs. Un. Itin.*

T. Zygis. Linn.! *Spec.* 826. *et Auct. plur.*

T. variabilis. Link *et Hoffm. Fl. Port.* 1. t. 17.

T. ciliatus. Lam. *Fl. Fr.* 2. 392.

T. albidus. Opiz *in Bot. Zeit.* 1824, 2. 526?

T. inodorus. Lej. *ex Dumort. Floral. Belg.* 47.

Hab. in Europa præsertim australiori, et in Asia media, in collibus incultis siccis aridis et ad vias: in Lusitania! Hispania! Gallia australi! Germania australi! Italia! Græciæ montibus *Sibthorp!* circa Byzantium et in monte Bougourlou *Durville!* in regione Tauro-Caucasico! et Altaico *Bunge!* etiam in ins. Madera et Azoricis *Masson!* (*v. v. et h. s. sp.*)

A *T. Serpyllo* non differt nisi foliis angustioribus. An mera varietas? Variat caule foliisque sæpius glaberrimis, nonnunquam pubescentibus villosisque.

11. *T. PANNONICUS* (All. *Fl. Ped.* 1. 20), suffruticosus procumbens, ramis floriferis adscendentibus villosis, foliis breviter petiolatis linearibus vel inferioribus oblongis basi angustatis venosis margine petiolisque ciliatis, floralibus subconformibus, calycibus villosis, labii superioris dentibus brevibus lanceolato-ovatis, inferioris laciniis subulatis ciliatis.

T. Marschallianus. Willd. *Spec. Plant.* 3. 141.

T. glabrescens. Hoffm. *et Link Fl. Port.* 1. 130. t. 15?

T. Zygis. Pall. *Nov. Act. Petrop.* 10. 313. *non Linn.*

T. adscendens. Bernh.? Link *Enum. Hort. Berol.* 2. 115?

T. odoratissimus. Mill.! *Dict. n.* 9.

T. hirsutus. Auct. plur.

T. lanuginosus. Mill. *Dict. n.* 8. *et Auct. plur.*

T. austriacus. Bernh.! *et ex Reichb. Fl. Germ. exc.* 312.

T. piligerus. Opiz *ex Reichb. Fl. Germ. exc.* 313.

Hab. in montosis Europæ australioris et Asiæ mediæ in Alpibus Pannonicis! Germania australi! Hungaria *Lang!* Podolia *Besser!* regione Tauro-Caucasico *Prescott!* &c., Caspico *Meyer!* et Altaico *Bunge!* (*h. s. sp.*)

A *T. angustifolio* vix differt ramis floriferis longioribus erectioribus villosis, et foliis duplo longioribus.

12. *T. SIBTHORPII*, caule basi procumbente ramoso, ramis erectis glabriusculis, foliis subsessilibus oblongo-lanceolatis glabris nervosis, floralibus conformibus, floribus numerosis parvis subspicatis, calycibus villosis, labiis divaricatis, superioris dentibus lanceolatis acutissimis, inferioris laciniis subulatis.

T. lanceolatus. Sibth.! Sm. *Prod. Fl. Gr.* 1. 419. *non Desf.*

Hab. in Græciæ montosis *Sibthorp!* (*v. s. sp. in herb. Sibth.*)

Suffrutex semipedalis. Folia 6-9 lineas longa, latiora quam in *T. Marschalliano*, glabra, rigida, nec ut in *T. lanceolato* molliter villosa. Verticillastri 2-6-flori, in spiculis laxis pollicaribus approximati. Folia floralia vix calyce longiora. Calyces subsessiles. Corolla vix calycem excedens. Stamina exserta.

13. *T. LANCEOLATUS* (Desf.! *Fl. Atl.* 2. 30. t. 128. *non Sm.*), suffruticosus erectus molliter villosus, foliis subsessilibus ovatis lanceolatis obtusis basi rotundato-cuneatis venosis molliter pubescentibus, floralibus

bus conformibus, racemis densis secundis, calycis villosi nutantis dentibus labii superioris ovatis acutis.

Hab. in Africa boreali: in Atlante prope Tlemsen *Desfontaines!* (v. s. sp. in herb. *Vahl.*)

Fruticulus 6-8-pollicaris, erectus, basi ramosissimus. Folia fere pollicaria. Spica 2-3-pollicaris, ex *Desf.* teres, sed in specimine secunda. Calycis labii inferioris laciniae subulatæ, superioris dentes ovati nec subulati, ut vult *Desf.*

14. *T. LINEARIS* (*Benth.* in *Wall. Pl. As. Rar.* 1. 31), procumbens, ramis floriferis breviter adscendentibus, foliis breviter petiolatis oblongo-linearibus basi angustatis venosis margine petiolisque ciliatis, floralibus ovatis basi rotundatis subimbricatis, calycibus glabriusculis, labii superioris dentibus brevibus lanceolato-ovatis, inferioris laciniis subulatis ciliatis.

Hab. in Indiæ Orientalis regionis Himalayensis montibus Kamaonensibus *Wallich!* (h. s. sp. e *Mus. Angl. Ind.*)

A *T. pannonici* varietatibus glabrioribus, non nisi habitu laxiore et foliis floralibus, differt. An ejus varietas? vel cum *T. Herbabarona*, *angustifolio*, *pannonico*, et *Sibthorpii*, ad *T. serpyllum* referendus?

15. *T. BRACTEOSUS* (*Visiani! MSS.*), procumbens, ramis floriferis adscendentibus, foliis petiolatis oblongis basi angustatis planis venosis margine petiolisque superiorum ciliatis, floralibus sessilibus late rotundato-cordatis imbricatis ciliatis, calycibus villosis, labii superioris dentibus brevibus ovato-lanceolatis, inferioris laciniis subulatis ciliatis.

Hab. in Dalmatia *Visiani!* (h. s. sp. comm. a cl. *Visiani.*)

Habitus et folia caulina *T. linearis*, a quo foliis floralibus distinctissimus est, a *T. striato* foliorum forma et habitu laxiore differt. An ejus var.?

16. *T. STRIATUS* (*Vahl. Symb.* 78?), procumbens, ramis floriferis adscendentibus pubescentibus, foliis subsessilibus linearibus rigidis basi angustatis glabris ciliatis, floralibus late cordato-ovatis striatis calycibusque pubescentibus in capitulo oblongo arcte approximatis subimbricatis.

T. Zygis. *Sibth. et Sm.! Fl. Gr.* 6. 60. t. 574. non *Linn.*

T. hirtus. *Willd. Enum. Hort. Berol.* 623?*

Hab. in Europa australiore: Gibraltariæ *Willdenow*, in regno Neapolitano *Tenore!* Græcia *Sibthorp!* (v. s. sp.)

Habitus *T. angustifolii*, at folia longiora, rigidiora, et inflorescentia distinctissima. Folia floralia, rigida, venosa, margine ciliata.

17. *T. HIRSUTUS* (*Bieb. Fl. Taur. Cauc.* 2. 59. et 3. 408?), procumbens, ramis floriferis adscendentibus cano-pubescentibus, foliis sessilibus linearibus ad axillas subfasciculatis margine planis ciliatis utrinque cano-tomentosis, floralibus latioribus floribusque in capitulo oblongo arcte approximatis.

T. vulgaris. *Sibth. et Sm.! Fl. Gr. Prod.* 1. 419. non *Linn.*

Hab. in Græciæ montosis *Sibthorp!* et in Tauria *Pallas!* *Bieberstein.* (v. s. sp. in herb. *Sibthorp et Lambert.*)

* "T. floribus capitatis, caulibus repentibus, foliis lanceolatis lineato-venosis utrinque hirtis."—*Willd. l. c.*

Habitus *T. diffusi*, *angustifolii*, *striati*, et *villosi*, a duobus prioribus differt foliis floralibus latioribus, a *T. striato* villositate, at *T. villoso* foliis floralibus integerrimis cano-pubescentibus.

18. *T. VILLOSUS* (Linn. Spec. 827), suffruticosus, procumbens, ramis brevibus hirsutiusculis, foliis oblongo-linearibus planiusculis margine ciliatis, floralibus oblongo-lanceolatis apice serratis calycibusque coloratis, verticillastris paucifloris approximatis.

T. villosus. *Sibth. et Sm. ! Fl. Græc. 6. 62. t. 578.*

Hab. in Archipelagi Græci insulis *Sibthorp !* (*v. s. sp. in herb. Sibth.*)

Habitus *Thymi angustifolii*, a quo differt foliis magis ciliatis, et præsertim calycibus duplo majoribus foliisque floralibus, ut in *Thymbra spicata*, coloratis, et apice sæpissime dentibus 2-3 acutis notatis. Verticillastri laxi nec imbricati. Corollæ vix calycem excedentes.

19. *T. CAPITELLATUS* (Hoffm. et Link ! Fl. Port. t. 12), fruticosus, canescens, foliis lanceolatis obtusis margine revolutis subtus cano-tomentosis, floralibus subimbricatis lato-ovatis calyces superantibus, verticillastris parvifloris in capitulis globosis terminalibus aggregatis.

Hab. in Lusitania : trans Tagum prope Lisboam *Link !* in Algarbia *Masson !* (*v. s. sp. in herb. Vahl. et Banks.*)

Species inflorescentia distinctissima. Habitus et folia caulina fere *T. vulgaris*. Florum capitula numerosissima, fere *Origani Maru*, magnitudine pisi. Calyces parvi, sessiles, dentibus brevibus patentibus. Corolla vix calyce longior.

In speciminibus Massonianis capitula majora, bracteis magis coloratis, quam in Linkianis.

20. *T. NUMIDICUS* (Desf. Fl. Atl. 2. 29 ?),* erectus vel basi procumbens, ramis cano-pubescentibus, foliis sessilibus oblongo-linearibus spathulatisve parvis fasciculatis planis glabris subciliatis, floralibus imbricantibus basi latissimis, verticillastris in capitulo parvo globoso arcte approximatis, calycibus villosis, labii superioris dentibus lanceolatis acutis, inferioris laciniis subulatis.

Hab. in Hispania *Pavon !* in Barbaria prope La Calle *Desfontaines ?* (*h. s. sp. comm. a cl. Lambert.*)

Habitus *T. vulgaris*, a quo differt foliis brevioribus, glabris, planis vel complicatis, nec margine revolutis, et præsertim inflorescentia. Capitula vix piso majora, hirsuta. Folia floralia exteriora basi latissima flores amplectentia, in apicem oblongam obtusam producta, interiora calycibus subbreviora.

21. *T. HISPANICUS* (Poir. Dict. 7. 646).

Hab. in Hispania et ad littora Africæ septentrionalis *Poiret.*

"*T. fruticosus* suberectus, foliis linearibus ciliatis, floribus capitatis subvillosis.

* "*T. fruticosus* erectus, foliis linearibus patulis glabris subtus nervosis, floribus capitatis, bracteis ovato-lanceolatis ciliatis, calycibus hirsutis.

"Frutex 1-decimetr. ramosus. Rami graciles, erecti, superne pubescentes. Folia integerrima, linearia, patentia subtus nervosa et punctata, glabra, 2 millim. vix lata. Fasciculi axillares. Flores conferti, terminales in capitulo oblongo dispositi. Bractæ ovato-lanceolatae, acutæ, nervosæ, ciliatæ, longitudine florum. Calyx villosus, striatus, 5-dentatus, dentibus setaceis. Corolla parva, rosea. Affinis *T. Zygis* Linn. Differt foliis glaberrimis nec ciliatis, bracteis basi latioribus."—*Desf. l. c.*

“*T. numidico* valde affinis et forsan ejusdem varietas. Distinguitur foliis margine ciliatis, capitulis florum minoribus subglabris vel parce villosis, bracteis minus dilatatis. Caules duri, lignosi, basi partim procumbentes, surrecti, 5-6-poll., ramis numerosis tenuibus subtetragonis, apice pubescentibus. Folia sessilia, angusta, linearia, integerrima, vix acuta, nervosa, punctata, 4 lin. longa, $\frac{1}{2}$ lin. lata, margine ciliata, ad axillas fasciculata, internodiis longiora. Calyces tubulosi, striati nervis purpurascens, pilis raris cinereis conspersi, dentibus 5 subsetaceis ciliatis, fauce villosi. Corolla calyce longior, purpurascens. Stamina corolla sublongiora.”—*Poir. l. c.*

22. *T. CAPITATUS* (Hoffm. et Link Fl. Port. 1. 123), basi procumbens ramosissimus, ramis erectis canescentibus sterilibus subspinescentibus, foliis sessilibus linearibus oblongisve planis, floralibus imbricatis ovatis ciliatis viridibus calyces obtegentibus.

Satureia capitata. Linn. ! Spec. 795. Sibth. et Sm. ! Fl. Græc. 6. 36. t. 544.

Thymus creticus. Brot. Phyt. Lus. 27. t. 12.

Thymus Marinosci. Ten. Fl. Nap. Brodr. 35. ex ejusd. Syll. Fl. Neap. 296.

Hab. in regionis Mediterraneæ siccis aridis saxosisque : in Barbaria *Desfontaines*, prope Tanger *Broussonet* ! in Lusitania *Brotero*, Hispania ! Sicilia *Gussone* ! regno Napolitano *Tenore* ! *Thomas* ! Archipelago Græco et Græcia copiose *Sibthorp* ! *Durville* ! &c., Syria et Palæstina *Russell* ! *Bové* ! Smyrnæ *Fleischer* ! Oriente *Forskahl* ! (*h. s. sp.*)

Fruticulus elegans, durus, semipedalis, vel in hortis ramis elongatis divaricatis subpedalis, in dumetis densissimis rotundatis et undique floribus coronatis (*Durv.*) Folia 3-4-linearia, aliis minoribus ad axillas fasciculatis, glabriuscula, sæpe complicata, nec margine revoluta. Florum capitula terminalia globosa, vel sæpius oblonga. Verticillastri 6-flori, arcte imbricati. Calyces folio florali breviores, erecti, adpressi, glabri, vel angulis breviter scabro-hispidi. Labii superioris dentes brevissimi, inferioris laciniae subulatæ ciliatæ. Corolla e capitulo exserta, fauce dilatata, labiis patentibus. Stamina exserta, distantia, divergentia.

SECTIO III. PSEUDOTHYMBRA.

Folia floralia magna, membranacea, colorata.

23. *T. CEPHALOTUS* (Linn. ! Spec. 826), erectus ramosus cano-pubescent, foliis sessilibus linearibus margine revolutis parvis fasciculatis, floralibus maximis ovatis acutis submembranaceis coloratis imbricatis calyces obtegentibus.

Hab. in Hispania *Pavón* ! et in Lusitania ! (*h. s. sp. comm. a cl. Lambert.*)

Habitus et folia *Thymi vulgaris*, at inflorescentia distinctissima. Folia floralia semipollicaria, sessilia, basi rotundata, margine vix ciliata, purpurascens. Capitula subglobosa, magnitudine *Cerasi*. Corollæ extus pubescentes, tubo exserto bracteas subæquante, limbo brevi. Stamina corollam subæquantia, divergentia.

24. *T. CILIATUS*, fruticulosus erectus, ramis pubescentibus villosisve, foliis oblongo-lanceolatis linearibusve obtusis planis viridibus venosis margine subciliatis, floralibus maximis lato-ovatis acutis submembranaceis nervosis coloratis ciliatis imbricatis calyces obtegentibus.

Thymbra ciliata. Desf. Fl. Atl. 2. 10. t. 122.

Hab. in Africa boreali: in collibus aridis et incultis prope Mascar Desfontaines, prope Galla Masson, in ins. Canariensibus? * Broussonet! (h. s. sp. comm. a cl. Requier, et v. s. sp. in herb. Banks., Lambert., et Lindley.)

"Frutex elegans, ramosissimus, erectus, 2-3-decimetr. Rami juniores pubescentes lanugine brevissima, teretes aut vix tetragoni, nunc simplices nunc ramosi, inæquales. Folia linearia, rigidula, patentia, sessilia, margine utrinque pilis albidis ciliata, poris conspersa. Flores dense capitati, terminales, capitulis ovato-cylindricis obtusis 2-3 centim. longis. Bracteæ magnæ, ovatæ, acutæ, ciliatæ, subtus nervosæ, calyce longiores. Calyx teres, subcompressus, bilabiatus, dentibus ciliatis, 2 inferioribus longioribus setaceis. Corolla violacea. Tubus rectus, calyce duplo longior. Labium superius integrum obtusum planiusculum, inferius trilobum, lobis subrotundis integris. Stamina 4, didynama, corolla vix longiora. Antheræ minutæ. Stigmata acuta."—Desf. l. c.

Exemplaria Broussonetiana exacte cum hac descriptione conveniunt, exceptis foliis, quæ latiora et minus ciliata. In exemplaribus Massonianis, folia caulina rigidiora, floralia magis colorata et rigidiora.

Species non satis notæ vel dubiæ.

T. PULCHELLUS (C. A. Meyer Enum. Pl. Cauc.-Casp. 87).

Hab. in regione Caucasico-Caspico: in collibus gypsaceis ad fluvium Anticetam C. A. Meyer.

"T. caulibus basi fruticulosus erectis ad angulos pubescentibus, foliis glaberrimis planis oblongis sublinearibusve obtusis imis ellipticis, verticillis spicato-approximatis, dentibus calycinis labii superioris subæqualibus subulatis, staminibus exsertis."—Meyer l. c.

T. RICHARDI (Pers. Syn. 2. 130).

Hab. in ins. Balearicis Ant. Richard (Persoon).

"T. floribus capitatis, bracteis ovatis calycibusque rigidis, foliis late ovatis subtus nervosis."—Pers. l. c.

An *Origanum majoricum* Camb.?

T. MULTIFLORUS (Pers. Syn. 2. 131).

Hab. in horto Trianensi olim cultus Persoon.

"T. floribus axillaribus pedunculatis, pedunculis multifloris, calycibus oblongis dentibus acutis, foliis ovatis glabris venis subtus prominentibus. *Calaminthæ* affinis. Folia subtus punctata."

T. HIRSUTISSIMUS (Poir. Dict. 7. 650).

Thymbra hirsuta. Pers. Syn. 2. 114.

Hab. in Oriente Poir.

"T. foliis ovato-lanceolatis subsessilibus hirsutis, spicis capitato-subverticillatis, bracteis ciliato-hirsutis.

"Caules erecti, humiles, lignosi, glabri, teretes, ramosissimi. Rami erecti, breves, subfasciculati. Folia parva, ovato-lanceolata, superiora longiora, lanceolata, in petiolum brevem angustata, acuta, integerrima, firma, punctata, pilis rigidis albis conspersa, internodiis longiora. Flores ad apices ramorum breviter spicati, capitati, densi, villosissimi, bracteis lanceolatis flores subæquantibus, ciliatis vel margine pilis numerosis rigidis albidis hispidis. Corolla purpurascens, calyce sublongior. Calyx tubulosus, ore apertus, dentibus 5 subulatis, acuminatis, subspinosus, subæqualibus, leviter ciliatis."—Poir. l. c.

An *Micromeria*, M. nervosæ affinis?

* Sic in herb. Requier, at verosimiliter ex Barbaria cum exempl. Lambertianis, a cl. Durand lect.

T. ALBICANS (Hoffm. et Link Fl. Port. t. 11).

Hab. in Lusitania.

“*T. floribus verticillato-capitatis terminalibus axillaribusque, foliis lanceolatis subtus albidis, dentibus calycinis subæqualibus subulatis.*”—*Poir. Dict. Suppl.* 5. 305.

An *Micromeria Græca*?

T. MOSCHATELLUS (Poll. Pl. Veron. 15. ex Poir. Dict. Suppl. 5. 304).

Hab. in hortis culta.

“*T. caule villosa diffuso, foliis cordatis subserratis obtusis bullatis pubescentibus, pedunculis axillaribus trifloris, floribus lateralibus subsessilibus.*”—*Poll. ex Poir. l. c.*

T. MEGAPOTAMICUS (Spreng. Syst. Cur. Post. 224).

Hab. in America meridionali: ad Rio Grande Sello (*Sprengel.*)

“*T. caule erecto herbaceo, foliis linearibus convolutis aspero-punctatis, pedunculis confertis folia superantibus.*”—*Spreng. l. c.*

An *Hedeoma multiflora*?

T. LONGICAULIS (Presl. Fl. Sicul. xxxvii.)

Hab. in Sicilia *Presl.*

“*T. caulibus longissimis repentibus puberulis, foliis cuneiformo-oblongis obtusis glaberrimis integris, capitulis globosis, bracteis oblongis obtusis longitudine calycis pubescentis, dentibus calycinis ciliatis subulatis, antheris exsertis.*”—*Presl. l. c.*

T. ÆGYPTIACUS (Bernh. ex Steud. Nom. Bot. 835).

T. CAMPHORATUS (Hoffm. et Link Fl. Port.)

Species e genere excludendæ.

T. ACINOIDES *Ten.* = *Melissa patavina.*

T. ACINOS *Linn.* = *Melissa Acinos.*

T. ALPINUS *Linn.* = *Melissa alpina.*

T. ATHONICUS *Bernh.* = *Melissa Nepeta.*

T. BARRELIERI *Spreng.* = *Micromeria marifolia.*

T. BIFLORUS *Don.* = *Micromeria biflora.*

T. BRAUNEANUS *Hoppe.* = *Melissa Nepeta.*

T. BROWNEI *Swartz.* = *Micromeria Brownei.*

T. CALAMINTHA *Scop.* = *Melissa Calamintha.*

T. CALAMINTHOIDES *Reichb.* = *Melissa Calamintha.*

T. CANESCENS *Dumort.* = *Melissa Acinos.*

T. CANUS *Stev.* = *Melissa graveolens.*

T. CAROLINIANUS *Michx.* = *Melissa caroliniana.*

T. CHAMISSONIS *Benth.* = *Micromeria Douglassii.*

T. CORSICUS *Pers.* = *Melissa microphylla.*

T. CRETICUS *DC.* = *Micromeria marifolia.*

T. CROATICUS *Pers.* = *Micromeria Piperella.*

T. DEBILIS *Bunge.* = *Melissa debilis.*

T. DIFFUSUS *Hortul.* = *Melissa Nepeta.*

T. DOUGLASSII *Benth.* = *Micromeria Douglassii.*

T. ERICÆFOLIUS *Roth.* = *Micromeria varia.*

T. EXIGUUS *Sm.* = *Melissa graveolens.*

T. FILIFORMIS *Ait.* = *Micromeria filiformis.*

T. FILIFORMIS *Sieb.* = *Micromeria nervosa.*

T. FRUTICULOSUS *Bert.* = *Micromeria approximata.*

- T. GLANDULOSUS *Req.* = *Melissa glandulosa*.
 T. GRANDIFLORUS *Scop.* = *Melissa grandiflora*.
 T. GRANDIFLORUS *Sims.* = *Melissa caroliniana*.
 T. GRAVEOLENS *Bieb.* = *Melissa graveolens*.
 T. HETEROPHYLLUS *Poir.* = *Melissa Acinos*.
 T. HIRTUS *Russ.* = *Micromeria græca*.
 T. HIRTUS *Sieb.* = *Melissa cretica*.
 T. HIRTUS *Viv.* = *Salvia ægyptiaca*.
 T. IMBRICATUS *Forsk.* = *Micromeria Forskahlei*.
 T. INCANUS *Sm.* = *Melissa incana*.
 T. INDICUS *Burm.* = *Geniosporum prostratum*.
 T. INODORUS *Desf.* = *Micromeria inodora*.
 T. LANCEOLATUS *Poir.* = *Pycnanthemum lanceolatum*.
 T. LUCIDUS *Ehrh.* = *Ziziphora clinopodioides*.
 T. MARGINATUS *Sm.* = *Micromeria piperella*.
 T. MARIFOLIUS *Willd.* = *Micromeria marifolia*.
 T. MASTICHINA *Sibth. et Sm.* = *Micromeria nervosa*.
 T. MICRANTHUS *Brot.* = *Micromeria græca*.
 T. MICROPHYLLUS *Durv.* = *Micromeria microphylla*.
 T. MONTANUS *Crantz.* = *Melissa alpina*.
 T. NEPETA *Scop.* = *Melissa Nepeta*.
 T. NEPETOIDES *Don.* = *Nepeta ruderalis*.
 T. NUBIGENUS *Humb. et Kunth.* = *Micromeria nubigena*.
 T. ORIGANIFOLIUS *Don.* = *Melissa longicaulis*.
 T. PARVIFLORUS *Req.* = *Mentha Requiæni*.
 T. PATAVINUS *Jacq.* = *Melissa patavina*.
 T. PIPERELLA *All.* = *Micromeria Piperella*.
 T. PIPERITUS *Don.* = *Melissa longicaulis*.
 T. PUNCTATUS *Willd.* = *Ziziphora clinopodioides*.
 T. PURPURASCENS *Poir.* = *Melissa purpurascens*.
 T. REPENS *Don.* = *Melissa repens*.
 T. ROTUNDIFOLIUS *Poir.* = *Melissa rotundifolia*.
 T. SERRATUS *Poir.* = *Pycnanthemum muticum*.
 T. SUAVEOLENS *Sibth. et Sm.* = *Melissa patavina*.
 T. SUBNUDUS *Spreng.* = *Micromeria pulegium*.
 T. SYLVATICUS *Bernh.* = *Melissa clinopodium*.
 T. SYRTICUS *Spreng.* = *Salvia ægyptiaca*.
 T. TENERIFFÆ *Link.* = *Micromeria microphylla*.
 T. TENERIFFÆ *Pers.* = *Micromeria Teneriffæ*.
 T. TEREBINTHINACEUS *Willd.* = *Micromeria Teneriffæ*.
 T. TRAGORIGANUM *Linn.* = *Satureia Thymbra*.
 T. UMBROSUS *Spreng.* = *Melissa Calamintha*.
 T. VERONICÆFOLIUS *Spreng.* = *Melissa veronicæfolia*.
 T. VERTICILLATUS *Poir.* = *Pycnanthemum lanceolatum*.
 T. VILLOSISSIMUS *Tausch.* = *Melissa alpina*.
 T. VIRGATUS *Ten.* = *Micromeria græca*.
 T. VIRGINICUS *Linn.* = *Pycnanthemum linifolium*.
 T. XALAPENSIS *Humb. et Kunth.* = *Micromeria xalapensis*.

XLI. SATUREIA.

Satureia. *Linn. Gen.*

Calyx campanulatus, 10-nervius, æqualis, 5-dentatus vel obscure bilabiatus, fauce intus nuda vel villis raris pilosa. Corolla tubo calycem vel bractæas imbricantes æquante, limbo bilabiato, labio superiore erecto plano integro vel emarginato, inferiore patente trifido, lobis

* Synonymon supra, p. 309. omissum.

planis subæqualibus. Stamina 4, subrecta, divergentia, inferiora longiora, exserta. Antheræ biloculares loculis parallelis vel divergentibus. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis.—Herbæ suffruticesve aromaticæ, foliis parvis integerrimis, sæpe in axillis fasciculatis. Verticillastri nunc pauciflori, bracteis brevibus nullisve, nunc multiflori vel in capitulum aggregati, bracteis suffulti.

The first two sections contain European species belonging to the Mediterranean region; the third is North American.

SECTIO I. SATUREIA.

Verticillastri pauciflori. Bracteæ parvæ, vel nullæ.

1. *S. HORTENSIS* (Linn.! Spec. 795), annua, erecta, pubescens, verticillastris subsecundis remotis vel supremis subspicatis.

S. viminea. Burm.! Fl. Ind. 126. non Linn.

Hab. in Europa australi: in Hispania! Gallia australi! Italia! et ex Europa verosimiliter allata in America boreali! Indiæ orientalis peninsula *Heyne!* et ad Caput Bonæ Spei! (*v. v. et h. s. sp.*)

Herba ramosissima, semipedalis vel parum altior, sæpe purpurascens. Rami pilis brevibus rigidis reflexis pubescentes, vix tetragoni. Folia oblongo-linear, acuta, integerrima, basi in petiolum brevem angustata, sparse et breviter pubescentia, 1-nervia, plana vel siccitate margine involuta, floralia conformia. Verticillastri laxè subsexflori. Pedunculi communes in verticillastris inferioribus lineares, in superioribus subnulli. Bracteæ breves lineares vel omnino abortivæ. Pedicelli brevissimi. Calycis dentes ad medium tubi attingentes, rigidi, subæquales, uti nervi calycis breviter scabro-hispidi. Faux intus omnino nuda. Corolla dentes calycinis vix excedens, extus sparse pubescens. Genitalia lobis corollæ breviora. Achenia ovoideo-triquetra, læviuscula.

2. *S. RUPESTRIS* (Wulf. in Jacq.! Coll. 2. 130. Ic. Rar. t. 494), suffruticosa, ramis adscendentibus, foliis petiolatis ovatis obtusis glabris vel subcanescentibus, racemis densis multifloris subsecundis, calycis dentibus brevibus acutiusculis.

*S. thymifolia. Scop. Fl. Carn. ed. 2. t. 29?**

Calamintha rupestris. Host.! Fl. Austr. 2. 131.

Melissa alba. Waldst. et Kit. Pl. Rar. Hung. 3. 227. t. 205.

Nepeta croatica. Spreng. Syst. 2. 727.

Nepeta pumila. Spreng. Cent. Sp. min. cogn. 29.

Hab. in Europæ austro-orientalis montibus siccis et locis asperis: in Carniola *Jacquin!* Hungaria, Croatia *Waldstein et Kitaibel*, Carinthia *Host.*, Istria *Sadler!* Dalmatia *Portenschlag.* (*h. s. c. et v. s. sp. in herb. plur.*)

Habitus inter *Satureas* et *Melissas* (*Calaminthas*) media. Caules basi lignosi. Rami herbacei, 1-1½-pedales, dense foliosi, ramulosi, apice subcanescentes. Folia 3-4-linear, subintegerrima, basi angustata, in exemplaribus cultis majora, hinc inde crenato-dentata, floralia infima conformia, superiora parva floribus breviora. Verticillastri multiflori, subcymosi, in spica seu racemo denso 1-3-pollicari approximati, pedicelli brevissimi. Bracteæ minutæ. Calyces vix lineam longi, erecti, æquales, subcampanulati, fauce intus glaberrima. Corolla tubo breviter exserto, calyce duplo triplove longior alba, labiis hiantibus. Stamina breviter exserta, vix distantia.

* Confer *Melissam thymifoliam* infra.

3. *S. MONTANA* (Linn. ! Spec. 794), suffruticosa, glabra vel tenuiter scabro-pubescent, foliis oblongo-linearibus acutis vel inferioribus spathulatis cuneatisve obtusis, verticillastris plurifloris laxis secundis, in spica racemove approximatis.

S. montana. Sibth. et Sm. ! Fl. Gr. 6. 35. t. 543.

S. trifida. Mœnch. Meth. 386.

S. subspicata. Vis. ! Spec. Pl. Dalm. 11. t. 4. Ten. ! App. ad Ind. Sem. Hort. Neap. 1827.

S. illyrica. Host. ! Fl. Austr. 2. 133.

S. variegata. Host. ! Fl. Austr. 2. 134.

S. cuneifolia. Ten. ! Fl. Nap. t. 151. f. 2. Syll. 277.

S. obovata. Lag. ! Spreng. Syst. Veg. 2. 720.

S. hyssopifolia. Bert. Ann. di Stor. Nat. 1829. fasc. 3. 406.

Micromeria montana. Reichb. Fl. Germ. exc. 311.

Micromeria pygmæa. Reichb. l. c.

Satureia pygmæa. Sieb. pl. exs. ex Reichb. l. c.

Micromeria variegata. Reichb. Fl. Germ. exc. 859.

Hab. in regionis Mediterraneæ locis aridis apricis montosisque in montibus Pyrenæis prope Bagnères de Luchon ! in Hispania ! Lusitania Brotero, Africa boreali Desfontaines, Gallia et Germania mediterranea ! et secus Rhodanum ! et Rhenum ? usque ad Belgium Dumortier, in Italia a Pedemonte ! ad regnum Neapolitanum Tenore, Istria ! Dalmatia ! Græcia Sibthorp ! (v. v. et h. s. sp.)

Caules basi lignosi, diffusi, ramosissimi. Rami erecti, vel adscendentes, semipedales pedalesve, nunc omnino glabri, sæpius pilis brevissimis subreflexis pubescentes. Folia inferiora et ramorum steriliū latiora, nunc obovata, margine ciliata, superiora uti floralia angustiora, sæpius nuda, omnia uninervia, viridia, rigidiuscula, glabra vel pilis raris brevibus vix pubescentia. Verticillastri inferiores sæpius remotiusculi, laxissimi, cymis utrinque pedunculatis 3-5-floris, calycibus pedicellatis, bracteis linearibus foliaceis, superiores densiores, multiflori, magis approximati, interdum omnes in spicam densam unilateralem approximati. Calyces plerumque campanulati, 10-nervii, dentibus 5 rigidis subulatis subæqualibus tubo parum brevioribus, nonnunquam vero ad maturationem elongati, et rarius obscure 13-nervii. Dentes plerumque obscure in labio 2 dejecti. Faux intus plus minusve villosa. Corolla extus glabra vel pubescens, calyce duplo longior. Stamina subexserta, juniora adscendentia, approximata, demum divaricata. Corolla alba vel purpurascens. Achenia læviuscula.

4. *S. VIRGATA* (Vis. !), suffruticosa scabro-hispida, foliis oblongo-linearibus acutis, verticillastris plurifloris subæqualibus remotiusculis, in racemo longo virgato dispositis.

S. spicata. Vis. ex Pl. exs. Union. Itin. Wurtemb.

Micromeria spicata. Reichb. Fl. Germ. exc. 311.

S. fasciculata. Tausch. in Syll. Pl. Soc. Ratisb. 2. 248 ?* non Biv.

Hab. in apricis Dalmatiæ Visiani ! (h. s. sp. comm. a cl. Visiani, et v. v. c. in hort. Vind.)

A *S. montana* non differt nisi inflorescentia et hirsutie. Calycis dentes etiam parum breviores et flores minores. Racemus nonnunquam ultra pedalis.

5. *S. SPINOSA* (Linn. Spec. 795), suffruticosa erecta tortuoso-

* “*S. cymis axillaribus subspicatis secundis, foliis linearibus complicatis, nervis fasciculatis hirtis scaberrimis, caule fruticoso. Affinis S. Thymbræ et S. Tragoriganæ, sed flores non verticillato-spicati. Folia fere Menthæ cervinæ, sed punctatissima scaberrima.—Hab. in Dalmatia.*”—Tausch. l. c.

ramosa, ramis tomentosis spinescentibus, foliis oblongis acutis glabris, verticillastris paucis paucifloris.

S. spinosa. *Sibth. et Sm. ! Fl. Græc. 6. 36. t. 545.*

Hab. in Archipelago Græco *Sieber !* in Creta *Sibthorp ! Tournefort ! (h. s. sp.)*

Fruticulus semipedalis ramosissimus, ramis brevibus fere omnibus in spinas abeuntibus. Folia *S. montanæ* breviora, latiora, in ramis sterilibus minuta. Flores *S. montanæ* minores, cæterum conformes.

6. *S. INODORA* (Salzm. Pl. Tang. exs.), suffruticosa diffusa glabriuscula, ramis adscendentibus, foliis lineari-spathulatis obtusis margine ciliatis superioribus flores excedentibus, floribus paucis subsessilibus, dentibus calycinis obtusiusculis.

Hab. prope Tanger *Salzmann ! (h. s. sp. a cl. Salzm. lectam.)*

Species distinctissima. Habitus fere *Thymi angustifolii* exemplarium majorum. Rami duri tenuissime scabro-pubescentes. Ramuli brevissimi, numerosi, apice foliis dense obtecti. Folia semipollicaria, præter ciliis marginales glabra. Flores paucissimi, inter folia sessiles. Calyces glabri, campanulati, 10-nervii, dentibus 5 brevibus, muticis, et sæpius obtusis. Faux intus nuda.

SECTIO II. TRAGORIGANUM.

Verticillastri dense globosi multiflori remoti, bracteis suffulti. Calyx tubum corollæ subæquans.

7. *S. THYMBRA* (Linn. ! Spec. 794), suffruticosa diffusa scabro-hispida, foliis oblongo-linearibus vel inferioribus obovato-cuneatis acutis, verticillastris multifloris densis subglobosis omnibus remotis.

S. Thymbra. *Sibth. et Sm. ! Fl. Græc. 6. 33. t. 541.*

Thymus Tragoriganum. *Linn. Mant. 84.*

Satureia Tragoriganum. *Tausch. in Syll. Pl. Soc. Ratisb. 2. 248.*

Hab. in regione Mediterranea austro-orientali: in montosis asperis Græciæ australis et Archipelagi frequentissima *Sibthorp ! Durville !* in Syriæ et Palæstinæ montibus *Russell ! Bové ! (h. s. sp.)*

Rami lignosi, 1-2-pedales, divaricati, ramulosi. Folia acutiora breviora et parum latiora quam in *S. montana*, cæterum conformia, scaberrima. Verticillastri demum fere pollicem diametro 20-40-flori. Bractæe ovato-lanceolatae, acutæ, adpressæ, calycem æquantes, uti calyces pilis patentibus hispidae. Calycis dentes subæquales, lanceolato-subulati. Faux intus nuda. Corolla *S. montanæ* minor.

SECTIO III. PYCNOTHYMUS.

Verticillastri in capitulum oblongum aggregati, bracteis suffulti. Calyx minutus.

8. *S. ? RIGIDA* (Bartr. ! in Herb. Banks. MSS.), suffruticosa procumbens, ramis adscendentibus apice pilosiusculis, foliis lanceolatis obtusis margine revolutis, verticillastris in capitulo oblongo terminali

aggregatis, bracteis imbricatis villosissimis, calyce brevissimo membranaceo.

Hab. in America boreali: in Florida orientali *Bartram!* *Elliott!* *Le Conte!* (*h. s. sp. comm. a cl. Torrey, et v. s. sp. in herb. Banks. et Hooker.*)

Rami adscendentes, 4-6-pollicares, subsimplices, numerosi, basi pubescentes, apice piloso-hispidi. Folia nunc glabra, nunc, præsertim superiora, hispida, 3-4 lineas longa. Capitulum $\frac{3}{4}$ -1 $\frac{1}{2}$ -pollicare, pilis mollibus albis hispidum. Bracteæ subcoloratæ, lanceolatæ, obtusæ. Calyx bracteis triplo brevior, profunde quinque-dentatus. Corollæ tubus bracteas æquans. Limbus potius *Pycnanthemum* quam *Satureia*, cui vero generi habitu hæc planta simillima est, nec ullo modo cum *Pycnanthemum* conjungenda.

Species dubiæ vel non descriptæ.

S. INTERMEDIA (C. A. Meyer. Enum. Pl. Cauc.-Casp. 91).

Hab. in Caucaso: in locis lapidosis prope pagum Swant *C. A. Meyer.*

"*S. undique pubescenti-canescens, caulibus diffusis ramosissimis basi fruticulosus, foliis obovato-oblongis obtusiusculis subcrenatis, cymis axillaribus paucifloris, bracteis sublinearibus calyce subbrevioribus, calycibus bilabiatis, lobis lineari-lanceolatis muticis. Folia S. Thymbrae, calyces fere S. montanae.*"—*Meyer l. c.*

S. SESSILIFLORA (Presl. Flor. Sicul. xxxvi.)

Hab. in Sicilia *Presl.*

"*S. florum fasciculis sessilibus, in spicam oblongam foliosam dispositis, calycis oris ciliati dentibus ovatis erecto-patentibus, tubo corollæ calycem duplo superante, foliis lineari-lanceolatis acutis ciliatis punctatis subtus scabris, caule basi fruticoso, ramis diffusis velutino-pubescentibus.*"—*Presl. l. c.*

S. HIRSUTA (Presl. Del. Prag. 79).

Hab. in Sicilia *Presl.*

"*S. pedunculis axillaribus brevissimis 1-3-floris, bracteis calyce æquilongis, foliis ovato-lanceolatis hispidis, caulibus simplicibus hirsutis, pilis erecto-patentibus.*"—*Presl. l. c. ex Guss. Prod. Fl. Sic. 2. 115.*

Ab auctore (Fl. Sic. xxxvi.) ad *S. filiformem* Desf. (*Micr. microphyllam*) refertur, a cl. Gussone l. c. potius ad *Micr. julianam*. Ex characteribus Floræ Siculæ Preslianæ species suæ vix recognoscendæ sunt, et perpaucae cl. Gussone, qui multum Siciliam peragravit, obviæ.

S. PARVIFLORA (Presl. Fl. Sicul. xxxvi.)

Hab. in Sicilia *Presl.*

"*S. florum fasciculis sessilibus trifloris in spicam foliosam dispositis, bracteis numerosis setaceis, dentibus calycis erectis, tubo corollæ longitudine calycis, foliis ovato-lanceolatis internodio duplo longioribus caulibusque basi suffruticosis villosis.*"—*Presl. l. c.*

S. ANGUSTIFOLIA (Presl. Fl. Sicul. xxxvi.)

Hab. in Sicilia *Presl.*

"*S. florum fasciculis folio brevioribus, dentibus calycis erecto-patentibus, tubo corollæ calycem paulo excedente, foliis oblongo-lanceolatis cauleque suffruticoso patulo pubescenti-scabris.*"—*Presl. l. c.*

S. LONGIFLORA (Presl. Fl. Sicul. xxxvi.)

Hab. in Sicilia *Presl.*

"*S. florum fasciculis folio æquilongis, dentibus calycis patentibus, tubo corollæ calycem duplo excedente, foliis ovato-lanceolatis subtus canescentibus, caule suffruticoso diffuso.*"—*Presl. l. c.*

April 1834.

S. SCABRA (Presl. Fl. Sicul. xxxvi.)

Thymus scaber. Presl. Del. Prag.

Hab. in Sicilia Presl.

S. GLOBIFERA. Desf. ex Steud. Nom. Bot.

Species e genere excludendæ.

- S. AMERICANA* Poir. = *Hyptis scoparia*.
S. APPROXIMATA Biv. = *Micromeria approximata*.
S. CANESCENS Guss. = *Micromeria canescens*.
S. CAPITATA Linn. = *Thymus capitatus*.
S. CONDÆA Juss. = *Hyptis scoparia*.
S. CONGESTA Horn. = *Micromeria græca*.
S. CONSENTINA Ten. = *Micromeria græca*.
S. FASCICULATA Rafin. = *Micromeria approximata*.
S. FILIFORMIS Desf. = *Micromeria microphylla*.
S. FILIFORMIS Ten. = *Micromeria nervosa*.
S. GRÆCA Linn. = *Micromeria græca*.
S. INCANA Spreng. = *Micromeria obovata*.
S. INODORA Host. = *Micromeria parviflora*.
S. JULIANA Linn. = *Micromeria juliana*.
S. LANATA Link = *Micromeria lanata*.
S. MICRANTHA Hoffm. et Link = *Micromeria græca*.
S. MICROPHYLLA Guss. = *Micromeria microphylla*.
S. NERVOSA Desf. = *Micromeria nervosa*.
S. ORIGANOIDES Linn. = *Cunila mariana*.
S. OVATA Br. = *Micromeria ovata*.
S. PARVIFLORA Vis. = *Micromeria parviflora*.
S. PUNCTATA Br. = *Micromeria punctata*.
S. SIDERITIS Lunan. = *Micromeria obovata*.
S. STRICTA Russ. = *Nepeta heliotropifolia*.
S. TENERIFFÆ Link = *Micromeria microphylla*.
S. TENUIFOLIA Ten. = *Micromeria græca*.
S. TENUIS Link = *Micromeria tenuis*.
S. VARIA Berth. et Webb = *Micromeria varia*.
S. VIMINEA Linn. = *Micromeria obovata*.
S. VIRGINIANA Linn. = *Pycnanthemum muticum*.

XLII. HYSSOPUS.

Hyssopi sp. Linn. et. Auct.

Hyssopus. Benth. in Bot. Reg. 15. ad calc. n. 1282.

Calyx tubulosus, 15-nervius, æqualis vel ore subobliquo, dentibus 5 æqualibus, intus fauce nuda. Corolla tubo calycem æquante, bilabiata, labio superiore erecto plano emarginato, inferiore patente trifido, lobo medio majore. Stamina 4, exserta, divergentia, didynama, inferioribus longioribus. Antheræ biloculares, loculis linearibus divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis, apice stigmatiferis. —Genus calyce ab omnibus *Satureineis* distinctum, et *Nepeteis* affine, at characteribus cæteris omnino *Satureineum*.

A single European and North Asiatic species.

1. *H. OFFICINALIS* (Linn. Spec. 796).

*α latifolius.**H. Fischeri. Hortul.**H. alopecuroides. Fisch. (Hortul.)**H. officinalis, β decussatus. Pers. Syn. 2. 114.**H. myrtifolius. Desf. Hort. Par.**β vulgaris.**H. officinalis. Auct. Jacq. Fl. Austr. t. 502.**H. ruber. Bernh.**γ angustifolius.**H. angustifolius. Bieb. Fl. Taur.-Cauc. 2. 38., 3. 389.**H. orientalis. Adam. Willd. Enum. Hort. Berol. 2. 600.**H. caucasicus. Spreng. in Steud. Nom. Bot. 423?**δ canescens (DC. Fl. Fr. Suppl. 396).*

Hab. in Europa australi et Asia media : in Hispania *Pavon!* Gallia australi! Italia, Germania australi! rarior in Germania media *Reichenbach*, in Belgio *Dumortier*, in Rossia meridionali *Prescott!* in Tauria! et Caucaso! in jugo Altaico *Bunge!* *γ* præsertim in regione Asiatico, *δ* circa Avenionem, *α* est var. hortensis. (*v. v. et h. s. sp.*)

Tota planta sæpius glaberrima, in var. *γ* vero pilis brevibus rigidis villosa. Caulis basi lignosus, diffusus, ramosissimus. Rami elongati, virgati, 1-2-pedales. Folia sessilia, sæpius oblongo-linearia vel lanceolata, in var. *α* elliptica, in var. *γ* angustiora, obtusa, integerrima, plana vel margine subrevoluta, basi parum angustata, utrinque viridia, subtus 1-nervia, crassiuscula. Verticillastri 6-15-flori, secundi, in spica terminali approximati, vel inferiores remoti. Folia floralia caulinis conformia at minora. Bracteæ exteriores lanceolato-lineares, acutæ, calyce vix breviores, interiores minutæ. Corolla cæruleo-purpurea, rarius alba. Achenia ovoidea, triquetra, compressa, læviuscula. Var. *δ* durior est et tota cano-villosa, at vix species propria.

*Species e genere excludendæ.**H. ANISATUS Nutt.* = *Lophanthus anisatus.**H. BRACTEATUS Gmel.* = *Elsholtzia cristata.**H. CRISTATUS Lam.* = *Pogostemon plectranthoides.**H. DISCOLOR Desf.* = *Lophanthus anisatus.**H. LOPHANTHOIDES Don.* = *Plectranthus Gerardianus.**H. LOPHANTHUS Linn.* = *Lophanthus chinensis.**H. NEPETOIDES Linn.* = *Lophanthus nepetoides.**H. OCYMI-FOLIUS Lam.* = *Elsholtzia cristata.**H. RESUPINATUS Mæench.* = *Lophanthus chinensis.**H. SCROPHULARIÆ-FOLIUS Willd.* = *Lophanthus scrophulariæfolius.*

XLIII. COLLINSONIA.

Collinsonia. Linn. Gen. 17.

Calyx fructifer declinatus, ovatus, sub-10-nervius, intus fauce subnuda, bilabiatus, labio superiore truncato planiusculo tridentato, inferiore bifido. Corolla exserta, subcampanulata, tubo breviter exserto, fauce ampliata, limbo subbilabiato, lobis 4-superioribus subæqualibus, inferiore sæpius longiore declinato subplano dentato vel lacerato-fimbriato. Stamina 2 vel 4, divaricata, longe exserta, superiora subbreviora,

vel omnino abortiva. Antheræ biloculares, loculis divaricatis, sæpe confluentibus. Stylus apice subæqualiter bifidus. Stigmata minuta, terminalia. Achenia sicca, lævia. — Herbæ graveolentes, habitu fere *Plectranthorum*, sectionis *Germaneæ*. Folia caulina magna, floralia parva, bracteæformia. Flores pedicellati, solitarii. Pedicelli oppositi, in racemis simplicibus vel sæpius paniculato-ramosis dispositi. Calyces ut in *Plectranthis*, florigeri parvi, fructiferi valde aucti. Corollæ flavæ vel flavo-purpurascentes.

The place of this North American genus in the order appears to me doubtful. It resembles in habit the *Ocymoideæ*, but differs from others of that tribe by the upper stamina, abortive in most of the species, and very divaricate, not declinate when fertile.

1. *C. CANADENSIS* (Linn. ! Spec. 39. Hort. Cliff. 14. t. 5), caule glabriusculo, foliis lato-ovatis acuminatis basi rotundatis subcordatis vel rarius cuneatis glabris, panicula elongata laxa multiflora, floribus diandris.

C. decussata. Mœnch. Meth. 379.

C. ovalis. Pursh ! Fl. Amer. Sept. 1. 21.

C. cuneata. Wender. Schrift. Nat. Ges. Marb. ?

Hab. in America septentrionali: in sylvis umbrosis rupestribus a Canada ad Carolinam Pursh ! &c. (*h. s. sp.*)

Caulis herbaceus, erectus, ramosus, 1-1½-pedalis, lævis, compresso-tetragonus, sæpius glaber, rarius tenuiter pubescens. Folia ampla, breviter petiolata, sæpius longe acuminata, serrato-crenata, nervosa, utrinque glabra, subtus minute et sparse glandulosa, superiora et floralia inferiora sessilia minora. Panicula 5-10-pollicaris, laxa, parce ramosa. Bracteæ pedicello multoties breviores, setaceo-acuminatæ, basi dilatatæ. Calyx fructifer pedicellum æquans, subglaber. Corolla flava, subcampanulata, calyce florifero 4plo longior. Stamina 2, longe exserta, divaricata; sterilia nulla.

2. *C. TUBEROSA* (Mich. Fl. Bor. Amer. 1. 17), foliis subrhombeo-ovalibus acutis basi cuneatis, panicula elongata laxa ramosissima multiflora, floribus diandris.

C. serotina. Walt. Fl. Car. 65. ex Pursh. Fl. Amer. Sept. 1. 21.

Hab. in America septentrionali: in umbrosis humidisque sylvarum Carolinæ Michaux ! (*v. s. sp. in herb. Kunth.*)

“Caulis inferne teretiusculus, pedalis, ramosus. Folia 1½-pollicaria, caulina sessilia, opposita, cordata. Panicula ramosissima, ramis elongatis. Bracteæ parvæ, subulatæ. Calycis dentes setacei tubo longiores. Flores multo quam in *C. canadensi* minores.” — Bosc. ex Ræm. et Schult. Syst. 1. 265.

Inflorescentia, calyx, corolla, et stamina *C. canadensis*, a qua differt foliorum forma et floribus minoribus.

3. *C. SCABRIUSCULA* (Ait. ! Hort. Kew. ed. 2. 1. 66), caule procumbente glabriusculo, foliis petiolatis ovatis acutis dentatis basi rotundatis, supra glabris vel pilosiusculis, subtus glabris, racemis simplicibus axillaribus terminalibusque, floribus diandris.

C. scabra. Pers. Syn. 1. 29. Pursh ! Fl. Amer. Sept. 1. 20.

C. præcox. Walt. ? Fl. Carol. 65.*

* “*C. foliis infimis petiolatis, floralibus pluribus ovatis sessilibus, floribus lateralibus et terminalibus.*” — Walt. l. c.

Hab. in Carolina et Florida *Pursh*, ad Jacksonville in Louisiana *Drummond* ! (*h. s. sp. a cl. Drummond, lect.*)

Caulis videtur procumbens vel adscendens, folia multo minora quam in cæteris speciebus, vix bipollicaria. Racemi pubescentes 2-3-pollicares, floribus oppositis breviter pedicellatis, *C. canadensis* duplo minoribus. Corollæ rubro-flavæ (*Pursh*).

4. *C. PUNCTATA* (*Elliott Bot. of S. Carol. and Georg. 1. 36*).

Hab. in Carolinæ solis pinguibus laxis frequens *Elliott*.

“*C. foliis ovato-lanceolatis acuminatis basi acutis, subtus pubescentibus punctatisque, panícula composita.*

“*Radix tuberosa, perennis. Caulis herbaceus, erectus, 2-6-pedalis, scaber, pubescens, apice ramosus. Folia magna, dentata, scabra, supra pubescentia, subtus subtomentosa, acuta, interdum utrinque acuminata, par supremum ovatum subsessile. Flores paniculato-racemosi. Pedunculi, calyx, corolla, et foliorum pagina inferior atomis resinosis conspersa. Calycis labium superius trifidum, inferius longius bifidum, laciniis omnibus acutis. Corolla flavescens, extus pubescens, intus pilosa, laciniis superioribus ovatis subæqualibus, inferiore longiore fimbriato. Filamenta 4, 2 superiora breviora, capitata, sterilia, 2 inferiora filiformia, corolla duplo longiora. Antheræ oblongæ, sulcatæ. Achenia globosa, lucida, uno alterove maturascente.*”—*Elliott, l. c.*

5. *C. VERTICILLATA* (*Baldw. in Elliott ! Bot. S. Carol. et Georgia, 1. 36*), caule basi glabro nudo superne viscoso-pubescente, foliis lato-ovatis acuminatis basi rotundato-cuneatis paribus binis approximatis pseudo-verticillatis, racemo laxo subsimplici, floribus tetrandris.

Hab. in Georgia *Elliott* ! (*v. s. sp. in herb. Hooker.*)

Herba pedalis, subsimplex, erecta. Folia ampla, basi magis angustata quam in *C. canadensi*, utrinque pilis brevibus raris hispidula et margine ciliata. Racemus viscoso-pubescent, semipedalis, nudus. Verticillastri infimi subsexflori, supremi biflori. Corolla calyce triplo longior, extus pubescens, labio inferiore breviter fimbriato. Annulus internus ad ortum staminum squamosus. Genitalia corolla triplo longiora. Stamina subæqualia, 2 adscendentia, 2 declinata. Stylus adscendens.

6. *C. ANISATA* (*Pursh ! Fl. Amer. Sept. 1. 21*), foliis lato-ovatis subdentatis basi rotundato-truncatis rugosis, nervis subtus cauleque pubescentibus, panícula densa, floribus tetrandris.

C. anisata. Bot. Mag. t. 1213.

Hab. in America septentrionali : in montibus Georgiæ *Lyon, Pursh* ! (*v. s. c. in herb. Lamb. et Smith.*)

Caulis erectus, subramosus, obtuse tetragonus, rufescens, pilis brevibus patentibus subviscosis pubescens. Folia breviora quam in *C. canadensi*, vix acuminata, parce dentata, valde rugosa, supra glabra vel ad venas pubescentia, subtus nervosa, floralia infima caulinis conformia, suprema bractæformia. Bractæ parvæ, membranaceæ, ovatæ, acuminatæ, basi amplexicaules, pedicellis breviores. Panícula densa, 4-6-pollicaria. Calyx floriger *C. canadensis*, fructiferum non vidi. Corolla magnitudine corollæ *C. canadensis*, sed labii inferioris lobus medius vix laciniatus, pallide lutea, extus glabra. Stamina longissime exserta.

XLIV. CUNILA.

Cunilæ sp. *Linn.*Zizyphoræ sp. *Ræm. et Schult.*

Calyx sub-13-nervius, ovato-tubulosus, æqualis, 5-dentatus, fauce intus villosa. Corolla tubo calycem æquante intus nudo, limbo bilabiato, labio superiore erecto subplano sæpius emarginato, inferiore patente trifido, lobis subæqualibus integris vel medio parum majore emarginato. Stamina 2 (inferiora), erecta, exserta, distantia; superiorum rudimenta nulla. Filamenta glabra edentula. Antheræ biloculares, loculis parallelis vel demum divaricatis. Stylus apice breviter bifidus, lobis subæqualibus subulatis, apice minute stigmatiferis, vel inferiore longiore subcomplanato margine stigmatifero. Achenia sicca lævia. — Herbæ suffrutices vel fruticuli. Verticillastri nunc laxissime corymbosi, nunc axillares pauciflori foliis multo breviores, nunc dense multiflori in spicis vel capitulis terminalibus approximati. Flores parvi, albi vel purpurascens. Corollæ sæpius intus villosæ, labio inferiori punctato.

An American genus, found in both hemispheres without the tropics.

CONSPECTUS SPECIERUM.

- Cymæ pedunculatæ, laxe corymbosæ, superiores folia superantes 1. *C. MARIANA*.
 Cymæ brevissimæ. Folia floralia flores longe superantes.
 Folia utrinque viridia, glabra.
 Folia ovata, inciso-dentata 2. *C. INCISA*.
 Folia oblongo-linearia, subserrata 3. *C. ANGUSTIFOLIA*.
 Folia utrinque cano-tomentosa 4. *C. INCANA*.
 Verticillastri dense multiflori, supremi racemosi spicati vel capitati.
 Caules erecti.
 Folia ovata vel ovato-oblonga.
 Folia glabra, venosa 5. *C. LEUCANTHA*.
 Folia tenuiter pubescentia 6. *C. POLYANTHA*.
 Folia oblongo-lanceolata vel linearia.
 Calyces villosissimi. Folia serrata 7. *C. LYTHRIFOLIA*.
 Tota planta glaberrima. Folia integerrima 8. *C. STRICTA*.
 Caules procumbentes.
 Verticillastri superiores subspicati, inferiores plus minusve distantes.
 Folia oblongo-ovata, basi longe angustata 9. *C. SPICATA*.
 Folia lato-ovata, basi rotundato-truncata 10. *C. MENTHOIDES*.
 Folia minuta, oblongo-linearia, fasciculata 11. *C. GALIOIDES*.
 Verticillastri 1-2, in capitulo terminali dispositi, uno alterove rarius distante.
 Villosa. Florum capitula oblonga 12. *C. FASCICULATA*.
 Glabra. Florum capitula parva depresso-globosa 13. *C. MICROCEPHALA*.

1. *C. MARIANA* (Linn. ! Spec. 30), herbacea, foliis subsessilibus ovatis serratis basi cordatis, floralibus subconformibus, inferioribus flores superantibus, cymis pedunculatis laxe corymbosis.

C. mariana. *Sw. Brit. Fl. Gard.* 3. 243.

Zizyphora mariana. Ræm. et Schult. Syst. 1. 208.

Satureia origanoides. Linn. Spec. ed. 1. 568.

Hab. in America boreali! a Canada ad Carolinam in montosis siccis *Michaux*! *Pursh*! (*h. s. sp. comm. a cl. Schweinitz.*)

Herba perennis, ramosa. Rami breves, glabri, ad nodos pubescentes. Folia plerumque pollicaria, obtusiuscula, nervosa, utrinque glabra. Verticillastri pauci. Cymæ utrinque dichotomæ, ramis gracilibus glabris. Bracteæ parvæ, subulatæ. Calyces vix ultra lineam longi, striati, fauce intus villosissima. Dentes breves lanceolati, acuti. Corolla calyce subduplo longior, intus pubescens. Stamina longe exserta.

2. *C. INCISA* (Benth. in Herb. Berol. MSS.), fruticosa, foliis petiolatis ovato-rhomboideis grosse inciso-serratis basi integerrimis cuneatis, floralibus conformibus flores superantibus, cymis parvis pedunculatis subcapitatis.

Hab. in Brasilia meridionali *Sello*! (*h. s. sp. e Mus. Reg. Berol.*)

Frutex ramosissimus, dense foliosus, ramis tenuiter pubescentibus, vix tetragonis. Folia acuta, 6-8 lin. longa, 4-6 lata, glabra, utrinque dense glandulosa. Verticillastri laxi, multiflori. Cymarum pedunculi petiolos æquantes, pedicellis brevissimis. Bracteæ parvæ, setaceæ. Calyx tubulosus, basi angustatus, glandulosus, striatus, dentibus æqualibus lanceolatis subfoliaceis erectis, fauce intus vix villosa. Corolla intus pubescens, tubo calycem subæquante. Stamina breviter exserta. Antheræ connectivo crasso loculis subdivaricatis. Styli lobus superior brevissimus, inferior elongatus recurvus complanatus, margine et apice stigmatifer.

3. *C. ANGUSTIFOLIA* (Benth. in Herb. Berol. MSS.), fruticosa glabra, foliis breviter petiolatis elliptico-linearibus integerrimis serratisve, floralibus conformibus flores superantibus, verticillastris laxis paucifloris floribus minutis.

Hab. in Brasilia meridionali *Sello*! (*h. s. sp. e Mus. Reg. Berol.*)

Frutex dense foliosus, ramis glabris vix tetragonis. Folia circiter pollicem longa, nunc integerrima, nunc apicem versus grosse serrata, basi angustata, integerrima, utrinque glabra, minute glandulosa, punctata, supra viridia, subtus pallida. Verticillastri laxè pluriflori, pedunculo communi pedicellisque sæpius brevissimis. Bracteæ minutissimæ, ovatæ. Flores minuti. Calyx ovatus, striatus, æqualiter 5-dentatus, tenuissime glandulosus, intus fauce subvillosa. Corolla intus pubescens, tubo calycem subæquante. Genitalia breviter exserta. Antherarum loculi connectivo crasso subparalleli. Styli lobus superior vix inferiori brevius, inferior subcomplanatus apice stigmatifer.

4. *C. INCANA* (Benth. in Herb. Berol. MSS.), fruticosa, foliis breviter petiolatis ovato-oblongis obovatisve obtusis integerrimis utrinque cano-tomentosis, floralibus conformibus flores superantibus, verticillastris 2-6-floris.

Hab. in Brasilia meridionali *Sello*! (*h. s. sp. e Mus. Reg. Berol.*)

Frutex habitu *Micromeriæ obovatæ*. Rami elongati, virgati, foliosissimi, cano-tomentosi. Folia 3-6 lineas longa, basi angustata, utrinque pilis stellatis cano-tomentosa, minute glandulosa. Verticillastri folio 2-3-plove breviores. Bracteæ minutæ setaceæ. Calyx breviter pedicellatus, magnitudine calycis *C. marianæ*, ovatus, breviter obtuse 5-dentatus, extus tenuissime glandulosus et cano-tomentosus, intus fauce villosissima. Corolla extus pubescens, tubo breviter exserto, intus pubescens, labiis intus glaberrimis. Genitalia vix exserta. Antherarum loculi divergentes, subdivaricati. Styli lobi subæquales. Achenia oblonga, subtriquetra, sub lente tenuissime rugosula.

5. *C. LEUCANTHA* (Benth. in Herb. Kunth. MSS.), herbacea,

glabra, foliis brevissime petiolatis ovato-oblongis integerrimis basi rotundatis, cymis vix pedunculatis laxiusculis multifloris.

Hab. in Mexico *Herb. Kunth!* (v. s. sp. in herb. Kunth.)

Caules e radice plures erecti, ramosi, obtusi, tetragoni, glaberrimi. Fol. 6-8 lin. longa, venosa, glabra, subtus oculo armato observata punctis minutis flavis resinosis conspersa. Verticillastri laxi, inferiores remoti, supremi approximati, 16-20-flori. Pedicelli et calyces pubescentes. Bracteæ lineari-lanceolatæ, pedicellis parum longiores. Corolla alba, extus pilosa.

6. *C. POLYANTHA*, herbacea, caule erecto pubescente, foliis breviter petiolatis ovatis subserratis basi rotundatis, verticillastris laxis multifloris in racemo longo dispositis.

Hab. in Mexico *Berlandier!* (h. s. sp. comm. a cl. De Candolle.)

Caules ultrapedales, præsertim ad nodos pubescentes. Folia plus pollice longa, utrinque tenuiter pubescentia, subtus pallida. Verticillastri laxissimi, inferiores 40-50-flori. Cymarum rami divaricato-dichotomi. Calyces sæpius nutantes, pubescentes, dentibus acutis. Bracteæ lineari-setaceæ, minutæ. Corolla alba, magnitudine corollæ *C. marianæ*. Stamina longe exserta.

7. *C. LYTHRIFOLIA* (Benth. in Bot. Reg. 15. ad calc. n. 1289), herbacea, caule erecto pubescente, foliis oblongo-lanceolatis serratis, verticillastris densis multifloris spicatis, inferioribus distinctis, calycibus villosissimis.

Hab. in Mexico prope Real del Monte *herb. Lindl.!* (v. s. sp. in herb. Lindley.)

Caulis ultrapedalis, ramosus, uti folia tomento brevi pubescens. Folia 1½-2-pollicaria, acuta, basi angustata, rugosa, subtus venosa, superiora minora, floralia vix flores excedentia, suprema parva, linearia. Spicæ 1½-2-pollicares. Bracteæ lineares, calyces æquantes, adpressæ. Calyces erecti. Corollæ *C. marianæ*.

8. *C. STRICTA* (Benth. in Herb. Berol. MSS.), herbacea, caule erecto stricto, foliis linearibus obtusis integerrimis rigidis, verticillastris densis multifloris, in spica terminali basi subinterrupta approximatis.

Hab. in Brasilia: in paludosis prope Ricaô de Sanelon et in Missionibus Uruguayensibus *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol. et v. s. sp. in herb. St. Hil.)

Habitus *Keithiæ*. Caulis 1-2-pedalis, subramosus, acute quadrangulus, angulis callosis, glaberrimus. Folia pauca, 1-1½-pollicaria, 1-nervia, margine subrevoluta, pallida, glaberrima, glandulosa; floralia minora, suprema acuta, bracteæformia, calyce breviora, margine ciliata. Bracteæ lanceolato-subulatæ. Spica 1-2-pollicaris. Calyx ovatus striatus, 13-15-nervius, glandulosus, irregulariter 5-dentatus, dentibus linearibus acutis margine ciliatis. Corollæ omnino *Cunilæ*, albæ, labio inferiore purpureo-punctato intus glabro, superiore emarginato. Stamina exserta. Styli lobus inferior planus acutus, apice stigmatifer.

9. *C. SPICATA* (Benth. in Herb. Berol. MSS.), herbacea, procumbens, ramis villosis, foliis breviter petiolatis obovato-oblongis obtusis remote serratis basi angustatis, verticillastris dense multifloris, in spicis terminalibus approximatis.

Hab. in Brasilia meridionali *Sello!* (h. s. sp. e Mus. Reg. Berol.)

Caulis vix tetragonus, pilis simplicibus subfasciculatis villosus. Folia vix semipollicaria, juniora in axillis subfasciculata, supra adpresso-pilosa, subtus glandulosa, ad nervos pilis longis ciliata. Verticillastri infimi subremoti, supremi in

spica 1-2-pollicari dispositi. Folia floralia infima caulinis conformia flores superantia, suprema sessilia, lanceolata, acuta, calycibus breviora. Bracteæ lineares, striatæ, calyce breviores. Flores magnitudine *C. marianæ*. Calyx striatus, extus pubescens, intus fauce villosa, dentibus lanceolatis acutis ciliatis subpatulis, superioribus brevioribus. Corollæ tubus calyce vix longior, faux subdilatata, intus villosa, labium superius vix emarginatum, labii inferioris lobi angustiores, integerrimi, impunctati, medio longiore. Genitalia exserta. Antherarum loculi divergentes. Styli lobus superior abbreviatus, inferior elongatus, recurvus, vix complanatus. Achenia ovoidea, lævissima.

10. *C. MENTHOIDES* (Benth. in Herb. Berol. MSS.), herbacea procumbens, ramis villosis, foliis petiolatis lato-ovatis obtusis vix crenatis basi rotundatis, verticillastris dense multifloris distinctis vel supremis approximatis.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Rami elongati, subsimplices, pilis patentibus villosi. Folia semipollicaria, supra rugosula, tenuiter pubescentia, utrinque glandulosa, subtus ad nervos prominulos ciliata. Verticillastri pauci, subglobosi. Folia floralia caulinis conformia, suprema minora sessilia. Bracteæ lato-ovatae, membranaceæ, ciliatæ. Calyx striatus pubescens, fauce intus villosa, dentibus latis acutis membranaceis coloratis subæqualibus. Corollæ intus villosæ, tubus calycem vix æquans, labium superius vix emarginatum, inferius punctatum, lobis lateralibus integerrimis, medio elongato divaricato-bilobo. Genitalia exserta. Antherarum loculi divaricati. Styli lobus superior brevissimus, inferior elongatus complanatus canaliculatus, margine stigmatifer.

11. *C. GALIOIDES* (Benth. in Herb. Mus. Berol. MSS.), suffruticosa procumbens, foliis parvis fasciculatis lanceolatis obtusiusculis integerrimis, verticillastris multifloris densis in spica elongata basi subinterrupta approximatis.

Hab. in Brasilia: in campis geraes et palustribus provinciæ Sancti Pauli ab urbe Castro ad Curitiba vulgaris *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol., et v. s. sp. in herb. St. Hil.*)

Rami elongati, virgati, tenuissime pubescentes. Folia numerosissima, 2-3 lineas longa, subsessilia, rigida, conduplicata, supra sub lente tenuissime pubescentia, subtus glabra, glandulosa. Verticillastri distincti, in spica laxa simplici approximati. Folia floralia caulinis conformia, suprema minora, calycem subæquantia. Bracteæ conformes, paullo breviores. Calyx ovatus, striatus, extus pubescens, intus fauce villosa, dentibus lanceolatis, brevibus, æqualibus. Corolla pallide cœrulea, extus pubescens, calyce duplo longior; faux dilatata intus villosa; labium superius planum, vix emarginatum; inferioris lobi angustiores, subæquales, integerrimi, vel medio parum longiore, subemarginato, impunctato. Genitalia exserta. Antherarum loculi paralleli. Styli lobi subteretes, superiore paullo brevior. Achenia matura non vidi. "Odor fortis aromaticus *Menthæ Pulegii*" (*St. Hil.*).

12. *C. FASCICULATA* (Benth. in Herb. Berol. MSS.), suffruticosa procumbens, ramis piloso-hispidis, foliis subsessilibus fasciculatis oblongis obtusis integerrimis margine revolutis utrinque hispidis, verticillastris densis multifloris, in capitulis ovoideis terminalibus aggregatis.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Rami piloso-hispidi, tetragoni. Folia 3-5 lineas longa, in axillis fasciculata. Florum capitulum $\frac{1}{2}$ -1 pollicem longum, verticillastro sæpius altero a capitulo distincto. Folia floralia caulinis conformia. Bracteæ minores, interiores lineares, striatæ, ciliatæ. Calyx ovatus, pubescens, intus fauce villosa, dentibus subæqualibus erectis basi lanceolatis subulatis ciliatis. Corolla extus pubescens, intus villosa, tubo breviter exserto, fauce subdilatata, labium superius planum, vix emarginatum,

inferius patens lobis lateralibus integerrimis, medio longiore subemarginato. Genitalia exserta. Antherarum loculi lineares, subdivaricati. Styli lobi subæquales, superior subteres, apice ad faciem internam stigmatifer, inferior complanatus, canaliculatus, apice truncatus, margine stigmatifer.

13. *C. MICROCEPHALA* (Benth. in Herb. Berol. MSS.), herbacea procumbens, ramis vix pubescentibus, foliis petiolatis oblongis obovatisve obtusis integerrimis vel subsinuato-serratis basi angustatis glabris planis, verticillastris multifloris densis, capitula parva globosa subterminalia formantibus.

Hab. in America meridionali: in Brasilia meridionali *Sello!* in republica Argentina *A. de St. Hilaire!* in Peruvia *Hænke!* (*h. s. sp. e Mus. Reg. Berol.*)

Caulis perennis, ramosissimus, ramis tetragonis, sub lente tenuissime pubescentibus. Folia distantia, parva, juniora in axillis subfasciculata, nervo medio marginibusque subtus prominulis, glabriuscula, subtus glandulosa. Flores in verticillastris densis terminalibus capituliformibus glomerati, v. nonnulli sæpe in verticillastro altero a terminali remoto dispositi. Folia floralia caulinis conformia, capitulum superantia. Bracteæ ovatæ, acutæ, membranaceæ, calyce sæpius breviores. Calyx ovatus, striatus, extus glabriusculus, intus fauce villosissima, dentibus lato-lanceolatis, acutis, tubo brevioribus. Corolla alba, tubus vix exsertus, faux dilatata intus villosa, limbus vix bilabiatus, labium superius planum, lato-ovatum, brevissime emarginatum, labii inferioris lobi paullo angustiores, supra punctis 2-4 purpureis notati, laterales integerrimi, medius subemarginatus. Genitalia exserta. Styli lobi vix complanati, superior inferiori multo brevior. Antherarum loculi divergentes, demum divaricati.

Species mihi ignota.

C. VERTICILLATA (Mœench. ex Steud. Nom. Bot. 899).

Ziziphora verticillata. Steud. *l. c.*

Species e genere excludendæ.

C. BUCHANANI Spreng. = *Hedeoma napalensis*.

C. CAPITATA Linn. = *Ziziphora clinopodioides*.

C. COCCINEA Hook. = *Gardoquia Hookeri*.

C. FRUTICOSA Willd. = *Westringia rosmariniformis*.

C. GLABELLA Mich. = *Micromeria glabella*.

C. HISPIDA Spreng. = *Hedeoma hispida*.

C. LYRATA Schranck. = *Salvia lyrata*.

C. NEPALENSIS Don. = *Hedeoma napalensis*.

C. PULEGIOIDES Linn. = *Hedeoma pulegioides*.

C. THYMOIDES Gou. = *Micromeria filiformis*.

C. THYMOIDES Linn. = *Thymus Serpyllum*.

TRIBUS V. MELISSINEÆ.

CALYX 13- rarius 10-nervius, quinquedentatus, bilabiatus, labio superiore 3-dentato, inferiore bifido, rarius æqualis. Corollæ tubus exsertus vel rarius inclusus, intus exannulatus; limbus bilabiatus, labio superiore recto integro vel emarginato-bifido, subplano vel rarissime galeato, inferiore patente lobis planis subæqualibus, vel medio sæpius latiore, integro vel emarginato. Stamina adscendentia, didynama, superioribus brevioribus, interdum abortientibus.

This tribe appears to me to be a natural group, though it is almost impossible to assign any character that may comprise the whole of the genera I have placed in it, and yet distinguish them from other nearly allied tribes. From *Satureineæ* they differ in the ascending stamina, usually placed in pairs under the upper lip; from *Prostanthereæ*, by the tubular form of the corolla; from *Scutellarineæ*, by the form of the limb of the corolla; from *Nepeteæ*, by the relative proportions of the upper and lower stamina; but the separation from *Stachydeæ* is more difficult. The principal distinction lies in the calyx, which has always a tendency to bilabiation,—the upper lip consisting of the junction of three sepals of which the marginal nerves in the adjoining sepals run into one another, so that the two are reduced to one; the lower lip is formed of two sepals, each preserving their three nerves; thus the whole calyx bears thirteen parallel and usually equidistant nerves. The upper lip of the corolla is also nearly plane, and not concave (except in the genus *Glechon*), and the tube is always free from annulus inside.

XLV. HEDEOMA.

Cunilæ sp. Linn.

Hedeoma. Pers. Syn. 2. 134.

Ziziphoræ sp. Ræm. et Schult.

Calyx ovato-tubulosus, basi infra subgibbus, 13-striatus, bilabiatus, labio superiore tridentato vel subtrifido, inferiore bifido, fauce intus villosa. Corolla tubo calycem æquante vel breviter exserto, limbo bilabiato, labio superiore erecto, integro, emarginato vel subbifido, plano, inferiore patente trifido, lobis subæqualibus, vel medio parum latiore integro, vel emarginato. Stamina 2 (inferiora) fertilia, adscendentia, antheris bilocularibus loculis divergentibus divaricatisve; 2 superiorum rudimenta nulla vel sterilia, brevia, subulata, capitata. Styli lobi subæquales, vel inferior elongatus subcomplanatus, apice et margine

stigmatifer, superiorem brevissimum basi involvens. Achenia sicca, lævia.—Herbæ suffruticesve, foliis parvis integerrimis subdentatisve. Verticillastri laxi, pauciflori, axillares, in racemis terminalibus subapproximati.

An American genus, with one East Indian species. It scarcely differs from *Micromeria*, except in the abortion of the upper stamina.

SECTIO I. MOSLA.

Calyx ovatus, labio superiore patente subplano breviter tridentato. Herbæ foliis dentatis.

1. *H. NAPAENSIS*, caule herbaceo erecto ramoso glabriusculo, foliis petiolatis ovatis utrinque angustatis serratis planis glabriusculis, floralibus parvis, verticillastris bifloris secundis laxe racemosis.

Cunila nepalensis. Don! Prod. Fl. Nep. 107.

Lycopus dianthera. Roxb.! Fl. Ind. 1. 145.

Melissa nepalensis. Benth. in Wall. Pl. As. Rar. 1. 66.

Mosla ocymoides. Hamilt.! MSS.

Cunila Buchanani. Spreng. Syst. 1. 54.

Hab. in Indiæ orientalis jugo Himalayano: in Napalia Wallich! Deyra Dhoon et Cashmere Royle! (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Royle.*)

Caulis 1-3-pedalis, ramosus, angulis acutis, subasperis, cæterum glaber. Folia semipollicaria vel vix pollicaria, supra viridia, subrugosa, subtus pallidiora, venosa. Racemi numerosi, axillares, basi foliosi. Verticillastri demum semipollicem distantes. Bracteæ minutæ, subnullæ. Flores parvi. Calyces breviter pedicellati, declinati, post anthesin subinflati; labii inferioris lacinia lanceolata, obtusæ, superioribus longiores. Faux intus pilis brevibus villosa. Corolla calycem vix æquans. Antherarum loculi divaricati. Staminum superiorum rudimenta parva, filiformia. Stylus apice subæqualiter bifidus. Achenia reticulato-rugosa.

2. *H. PULEGIOIDES* (Pers. Syn. 2. 131), caule herbaceo erecto ramoso pubescente, foliis petiolatis ovatis utrinque angustatis subserratis planis pubescentibus, floralibus conformibus, verticillastris axillaribus sexfloris, corollis calycem æquantibus.

Melissa pulegioides. Linn. Spec. ed. 1. 593.

Cunila pulegioides. Linn. Spec. 30.

Ziziphora pulegioides. Ræm. et Schult. Syst. 1. 209.

β mexicana, foliis subsessilibus utrinque rotundatis.

Hab. in Americæ borealis arvis siccis montosisque a Canada ad Carolinam Pursh! &c. *β* in Mexico Moçino et Sessé. (*h. s. sp. et v. s. sp. var. β in herb. Lambert.*)

Herba gracilis semipedalis, facie *Melissæ Acinos*. Folia semipollicaria et ultra, tenera, nunc integerrima, sæpius serraturis paucis remotis hinc inde notata. Pedicelli 1-2 lin. longi. Bracteæ ad basin pedicellorum oblongo-lineares, pedicello breviores. Calyx 2 lin. longus, striatus; dentes labii superioris breves, ovati, acutissimi; labium inferius duplo brevius, laciniis subulatis ciliatis. Corolla vix calyce longior, extus pubescens; labium superius concavum breviter emarginatum; inferioris lobi integerrimi, subæquales. Stamina 2, inferiora sub labio superiore adscendentia, antheris approximatis, loculis demum divaricatis ovatis. Staminum

superiorum rudimenta brevia, subulata, capitata. Styli lobus inferior elongatus, obtusus, complanatus, superiorem brevissimum basi involvens. Achenia ovato-globosa, lævia.

SECTIO II. HEDEOMA.

Calyx tubulosus teres, dentibus omnibus subulatis. Suffrutices foliis integerrimis.

3. *H. GILLIESII*, caule suffruticoso glabro, foliis subsessilibus linearibus obtusis integerrimis basi angustatis glabris, verticillastris bifloris, corollis calycem glabrum vix superantibus.

Hab. in America meridionali ad Cerro de Achiras prope Mendoza Gillies! (v. s. sp. in herb. Hooker.)

Suffrutex 2-6-pollicaris. Folia (*Thymi vulgaris*) linearia, basi in petiolum brevem angustata, punctata, rugosa, glandulosa, subfasciculata. Pedunculi folia floralia subæquantes. Calyces declinati, tubulosi, pedunculum æquantes, glabri, 13-striati, basi subtus gibbosi, sub fauce intus villosi, parum contracti, bilabiati, labio superiore 3-dentato, dentibus lineari-subulatis recurvis, inferiore 2-fido, laciniis subulatis incurvis ciliatis labio superiori sublongioribus. Corolla violacea calyce vix longior, fauce vix inflata, labio superiore brevissime emarginato, lobo medio labii inferioris integerrimo. Antheræ staminum inferiorum lobis distinctis divaricatis, connectivo crasso. Stamina superiora brevia sterilia. Styli lobus superior brevissimus, inferior complanatus recurvus. Odor *Thymi* (ex Gill.). Ab affini *H. multiflora* differt verticillastris 2-floris, glabritie omnium partium, corolla minori, &c.

4. *H. POLYGALÆFOLIA*, caule basi suffruticoso ramosissimo, foliis crebris sessilibus ovatis obtusis integerrimis basi angustatis coriaceis glabris, floribus ad apices ramorum approximatis, corollis calyce glabro dimidio longioribus.

Hab. in Brasilia meridionali Sello! (h. s. sp. e Mus. Reg. Berol.)

Caules numerosissimi, basi procumbentes, lignosi, denudati, superne dense cæspitosi, adscendentes, 3-4-pollicares, glabri, acute tetragoni. Folia vix 3 lin. longa, uninervia, subplicata, creberrime punctata. Flores pauci, folia floralia superantes. Pedicelli inferiores 3 lin. longi, superiores breviores, omnes supra basin bracteis 2 subulatis aucti. Calyx 3 lin. longus, tubulosus, profunde striatus, dentibus lanceolato-subulatis, binis infimis longioribus, angustioribus, ciliatis, annulus tubi intus villosissimus. Corolla extus tenuiter pubescens, calyce vix dimidio longior; tubus vix exsertus; labium superius erectum, emarginato-bifidum, inferioris lobi subæquales, rotundati, integerrimi. Stamina 2, exserta, adscendentia, antherarum loculis vix divergentibus, superiorum vestigia nulla. Stylus exsertus, lobo inferiore subulato basi subdilatato superiorem brevissimum involvente. Achenia pallida, ovoidea, lævia? at in specimine immatura.

5. *H. MULTIFLORA*, caule suffruticoso basi ramosissimo, ramis pubescentibus, foliis subsessilibus linearibus integerrimis margine revolutis punctato-scabris brevissime hispidis, verticillastris axillaribus 2-6-floris, corollis calyce hispido subduplo longioribus.

Hab. in Brasilia meridionali Sello! (h. s. sp. e Mus. Reg. Berol.)

Habitus fere *Micromeriæ Græcæ*. Caules semipedales, basi lignosi, ramosissimi, rami adscendentes, per totam fere longitudinem florigeri. Folia 3-4 lin. longa, acuta, creberrime excavato-punctata, uninervia. Pedicelli in axillo quoque 1-3 pubescentes, 2-3 lin. longi. Bractæ ad basin cujusque pedicelli 2, foliis conformes, sed pedicello dimidio breviores. Calyx 2-3 lin. longus, profunde striatus

nervis elevatis breviter hispidis, dentibus subulatis ciliatis, inferioribus duplo longioribus incurvis ciliatis. Corolla extus dense pubescens, calyce subduplo longior; tubus exsertus; labium superius breviter emarginatum, inferioris lobus intermedius integer. Stamina 2, breviter exserta, adscendentia, antherarum loculis demum divaricatis, superiorum vestigium nullum. Stylus exsertus, lobo inferiore subulato basi subdilatato superiorem brevissimum involvente. Achenia oblongo-ovoidea, sub lente tenuissime reticulata.

6. *H. DRUMMONDII*, caule suffruticoso ramosissimo, ramis pubescentibus, foliis petiolatis oblongo-linearibus integerrimis, verticillastris 6-10-floris, corollis calycem hispidum vix superantibus.

Hab. in America boreali: ad Monterey provinciæ Texas Mexicanorum *Herb. Hooker!* (v. s. sp. comm. a cl. *Hooker.*)

Caulis basi lignosus videtur, 4-6-pollicaris. Folia semipollicaria, acuta vel obtusa, pubescentia brevi, uti rami aspera, in petiolum basi angustata, ad axillas non fasciculata, floralia calyces subæquantia. Verticillastri inferiores sæpe 10-flori. Calyx parvus, profunde 13-striatus, subbilabiatus, dentibus omnibus subulatis, fauce intus villosa. Corollæ minutæ. A *H. Gilliesii* differt verticillis multifloris et calycibus hispidis; a *H. multiflora*, corollis minutis; a *H. hispida*, calycibus minus hispidis vix bilabiatis, bracteis subnullis, et aliis notis.

7. *H. HISPIDA* (Pursh! Fl. Amer. Sept. 2. 414), annua erecta, ramis subvillosis, foliis sessilibus linearibus obtusis integerrimis, floralibus conformibus flores superantibus, verticillastris subsexfloris, bracteis lanceolato-subulatis calyces æquantibus, calycibus ciliato-hispidis profunde bilabiatis, corollis calycem vix excedentibus.

Cunila hispida. Spreng. Syst. 1. 54.

Ziziphora hispida. Ræm. et Schult. Syst. Mant. 1. 179.

Hedeoma hirta. Nutt. Gen. Pl. N. Am. 1. 16.

Hab. in America boreali ad Missouri *Nuttall*, *Pursh!* ad Mississippi *Beck*, in Rocky Mountains *Torrey.* (v. s. sp. in herb. *Lambert.*)

Herba 2-4-pollicaris ramosissima, dense foliosa, rami pilis brevibus reflexis pubescentes. Folia semipollicaria, uninervia, viridia. Verticillastri numerosi, superiores approximati. Folia floribus duplo longiora. Calyces basi gibbi, dentibus aristatis.

Species e genere excludendæ.

H. BRACTEOLATA Nutt. = *Micromeria bracteolata*.

H. GLABRA Pers. = *Micromeria glabella*.

H. THYMOIDES Pers. = *Thymus Serpyllum* vel *Micromeria filiformis*.

XLVI. MICROMERIA.

Satureia et *Thymi* sp. Linn. et Auct.

Sabbatia. Mæench. Meth. 386. non Pursh.

Piperella. Presl. Fl. Sic. ? (sine char.)

Micromeria. Benth. in Bot. Reg. 15. ad calc. n. 1282.

Calyx tubulosus, 13- rarius sub-15-striatus, 5-dentatus, dentibus subæqualibus rectis vel vix in labia 2 dispositis, faux intus sæpius villosa. Corollæ tubus æqualis, rectus, intus nudus, calyce sæpius

brevior; limbus bilabiatus; labium superius erectum, subplanum, integrum vel emarginatum; inferius patens lobis planis subæqualibus vel medio latiore, integro vel emarginato. Stamina 4, didynama, inferiora longiora, adscendentia, apice per paria approximata, vel rarius subdivergentia. Filamenta edentula. Antheræ liberæ, biloculares; connectivum sæpe incrassatum; loculi distincti, paralleli, divergentes vel demum divaricati. Styli lobi nunc æquales subulati, stigmatibus minutis terminalibus, nunc superior brevissimus, inferior elongatus, recurvus, complanatus, margine stigmatifer. Achenia sicca, lævia.— Suffrutices vel herbæ. Verticillastri axillares vel spicati, rarius cymæformes subpaniculati. Flores plerumque parvi, purpurascens vel albi.

The *Micromeriæ* are spread nearly all over the temperate and warmer parts of the world; those of the section *Hesperothymus* are wholly American.

This genus is very closely allied to *Satureia* and to *Melissa*. It differs from the former by the nervation and form of the calyx, and by the stamens, which are more distinctly ascending in pairs. From *Melissa* it scarcely differs excepting in the calyx, which is less distinctly bilabiate. The sections *Piperella* and *Hesperothymus* have also a very different habit from that of *Melissa*; the *Pseudomelissæ*, however, in this respect resemble *Melissa*, but with the calyx of *Micromeria*. These sections are natural and distinct in habit, but it appears difficult to assign characters sufficiently important to distinguish them as genera.

CONSPECTUS SPECIERUM.

SECT. I. HESPEROTHYMUS. *Pedicelli axillares uniflori calyce longiores.*

Folia oblongo-linearia vel lanceolata.

Bractæ in pedunculo setaceæ 2. M. BRACTEOLATA.

Bractæ nullæ, vel ad basin pedunculi foliis conformes 1. M. GLABELLA.

Folia ovata vel subrotunda.

Folia sessilia 3. M. STOLONIFERA.

Folia petiolata.

Folia tenuia vix 3-4-linearia.

Folia glabra 4. M. BROWNEI.

Folia pilis sparsis hispida 5. M. XALAPENSIS.

Folia rugosa semipollicaria et ultra 6. M. DOUGLASSII.

SECT. II. PIPERELLA. *Flores subsessiles vel in capitulis sessilibus pedunculatisque glomerati. Verticillastri axillares vel subspicati. Folia integerrima.*

Folia superiora linearia.

Rami virgati erecti vel adscendentes. Folia in axillis vix fasciculata.

Bractæ calycem æquantes. Fasciculi florum densi, subsessiles 7. M. JULIANA.

Bractæ calyce breviores. Fasciculi florum laxi, pedunculati 8. M. GRÆCA.

Rami diffusi foliosissimi. Folia in axillis fasciculata.

Caules et folia floccoso-lanata 9. M. LANATA.

Caulis et folia glabra, pubescentia, vel tomentosa.

Calyces vix 1½ lin. longa . . . 11. *M. VARIA.*

Calyces 2-3 lin. longa.

Folia caulina minima setacea. Flores
numerosi, pedicellati . . . 13. *M. INODORA.*

Folia caulina oblongo-linearia vel lanceolata. Flores pauci, pedicellati . . . 12. *M. APPROXIMATA.*

Folia linearia rigida semipollicaria. Flores sessiles, densi . . . 14. *M. DENSIFLORA.*

Folia omnia subrotunda, ovata vel oblonga.

Flores in pedunculo brevi solitarii vel fasciculati.

Dentes calycini setacei. Folia plerumque sessilia (*Gerontogæ*).

Calyces pilis longis patentibus villosissimi.

Folia superiora oblongo-lanceolata . . . 16. *M. CANESCENS.*

Folia superiora ovata, vix oblonga . . . 17. *M. NERVOSA.*

Calyces glabri vel breviter vel adpresse pubescentes.

Rami erecti, virgati, ultrapedales . . . 27. *M. SINAICA.*

Rami diffusi vel adscendentes.

Flores solitarii subnutantes . . . 20. *M. FILIFORMIS.*

Flores subfasciculati, erecti, vel subdeclinati.

Calyces 2-3 lin. longi.

Folia subtus villosa, basi late cordata . . . 24. *M. SUBCORDATA.*

Folia utrinque glabra basi rotundata . . . 25. *M. PIPERELLA.*

Calyces 1-2 lin. longi.

Folia utrinque pubescentia vel villosa.

Rami firmi. Fasciculi florum subsessiles, densi . . . 15. *M. FORBESII.*

Rami filiformes. Fasciculi florum laxi, pedicellati.

Folia obtusa, basi rotundata, plana . . . 18. *M. MICROPHYLLA.*

Folia obtusiuscula, basi subcordata, margine revoluta . . . 19. *M. OVATA.*

Folia glabra.

Rami filiformes, elongati, sæpius diffusi.

Folia oblonga, basi angustata. Rami tenuissime pubescentes . . . 21. *M. PUNCTATA.*

Folia ovata, acuta. Rami glaberrimi . . . 22. *M. TENERIFFÆ.*

Folia ovata, obtusa. Rami sæpius pubescentes vel villosi . . . 18. *M. MICROPHYLLA.*

Rami suberecti, numerosi, foliosissimi . . . 23. *M. BIFLORA.*

Flores subsessiles. Verticillastri 4-6-flori (*Australicæ*).

Calyx fauce intus villosa . . . 28. *M. SATUREIODES.*

Calyx fauce intus subnuda.

Folia lanceolata. Caulis anguli scabri . . . 29. *M. AUSTRALIS.*

Folia ovata, vel ovato-lanceolata. Caulis anguli sublæves . . . 30. *M. GRACILIS.*

Flores subsessiles. Verticillastri plerumque biflori (*Americanæ*).

Fruticosa divaricata, incana, foliis obovatis petiolatis . . . 31. *M. OBOVATA.*

Suffruticosa procumbens vix pubescens, foliis sessilibus oblongis

33. M. GILLIESII.

Suffruticosa diffusa, hispida, foliis lato-ovatis petiolatis

32. M. NUBIGENA.

SECT. III. PSEUDOMELISSA. *Verticillastrorum cymæ utrinque elongatæ, pedunculatæ, subdichotomæ. Folia sæpe dentata.*

Dentes calycini subulati

34. M. PULEGIUM.

Dentes calycini breves obtusi

35. M. MARIFOLIA.

Species non satis notæ: 10. M. TENUIS; 26. M. FORSKAHLII; 36. M. PARVIFLORA.

SECTIO I. HESPEROTHYMUS.

Flores in pedicellis axillaribus, utrinque 1-3, calyce longioribus, solitarii, pedunculo communi nullo vel rarius elongato. Herbæ Americane foliis sæpe crenatis.

1. M. GLABELLA, glabra, caule herbaceo erecto pusillo, foliis sessilibus oblongo-linearibus obtusis integerrimis, verticillastris subsex-floris, pedicellis elongatis nudis, calycibus subbilabiatis, dentibus omnibus subulatis, fauce intus villosa.

Cunila glabella. *Mich. Fl. Bor. Amer.* 1. 13.

Hedeoma glabra. *Nutt. Gen. Pl. N. Am.* 1. 16? * *Pers. Syn.* 2. 131.

Ziziphora glabella. *Rœm. et Schult. Syst.* 1. 209.

Hab. in America boreali: in Canada *Gouldie!* prope Novum Eboracum *Torrey!* in rupestribus secus fluvia St. Lawrence, Ohio, Tennessee, et Mississipi *Beck, Nuttall, Pursh, &c. (h. s. sp. comm. a cl. Torrey.)*

Herba pusilla in omni parte glaberrima, sæpe purpurascens, et basi sæpius stolonifera. Folia in stolonibus petiolata, ovata, in caulibus oblongo-linearibus, semipollinaria. Bracteæ foliis conformes, pedicello vix breviores. Pedicelli et calyces 3-lineares. Calyces sec. Beck 10-nervi, in speciminibus suppetentibus 13-nervi, profunde striati, dentibus omnibus lanceolato-subulatis, 2 infimis profundius fissis. Faux villosissima. Corolla calyce duplo longior, glabra. Labium superius integrum, labii inferioris lobi subæquales, medio integro. Stamina inferiora sub labio superiore adscendentia, superiora brevissima, tubo inclusa. Antherarum loculi divergentes. Stylus apice subæqualiter? bifidus.

2. M. BRACTEOLATA.

Hedeoma bracteolata. *Nutt. Gen. N. Am. addend.*

Ziziphora bracteolata. *Rœm. et Schult. Syst. Mant.* 1. 179.

Hab. in America boreali: in Carolina *Nuttall.*

“H. pubescens, caule simplici tenui, foliis lineari-lanceolatis utrinque acutis integerrimis, pedicellis setaceo-bracteolatis 3-5-floris, calyce oblongo æquali, corolla minuta?”—*Nutt. l. c.*

3. M. STOLONIFERA, caule herbaceo prostrato radicante glabro, foliis sessilibus ovato-rotundatis obtusis subcrenatis basi subcordatis

* Nuttall describes it as having but two fertile stamens, and mentions the barren stamens as very short. I have always observed the upper stamens to be fertile, although much shorter than the lower ones.

glabris, pedicellis elongatis nudis, calycis dentibus ovato-lanceolatis, fauce intus villosa.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. *Lambert.*)

A *M. Brownei* differt caulibus subfirmioribus acute tetragonis et foliis latioribus sessilibus, nec petiolo limbum æquante donatis. Rami et folia *Gratiolam* referunt.

4. *M. Brownei*, caule herbaceo prostrato glabro, foliis petiolatis ovato-rotundatis obtusis subcrenatis glabris, pedicellis elongatis nudis, calycis dentibus ovato-lanceolatis, fauce intus villosa.

Thymus Brownei. *Swartz. Prod. Fl. Ind. Occ.* 89.

Hab. in America calidiore: in Florida *Michaux!* Jamaica! ad Santa Fé de Bogota *Gudot!* in Brasilia *Sello!* (h. s. sp.)

Caules basi sæpius repentes radicanter, rami filiformes, apice adscendentes, uti tota planta glaberrimi. Folia vix 3-4 lineas longa et lata, basi truncata vel subcordata, vix venosa, utrinque viridia, floralia minora conformia. Verticillastri biflori, distantes. Bracteæ subnullæ. Pedicelli filiformes. Flores magnitudine *M. filiformis*. Dentes calycini lati, subacuti. Corollæ tubus breviter exsertus.

5. *M. xalapensis*, caule herbaceo prostrato piloso, foliis subsessilibus ovatis subcrenatis ciliatis, pedicellis elongatis nudis, calycis dentibus ovato-lanceolatis, fauce intus villosa.

Thymus xalapensis. *Humb. et Kunth.!* *Nov. Gen. et Sp. Amer.* 2. 316.

Hab. in Mexico *Moçino et Sessé!* in declivitate montium soli orienti obversorum inter villam Pileta et urbem Xalapa *Humboldt et Bonpland!* in humidis prope Xalapam *Schiede et Deppe.* (v. s. sp. in herb. *Kunth. et Lambert.*)

Ab affini *M. Brownei* differt foliis subsessilibus ovatis nec rotundis, caulibusque pilis longis albidis hirsutis; a *M. stolonifera* foliis angustioribus pilosis.

6. *M. Douglassii*, caule herbaceo prostrato, foliis petiolatis ovato-rotundatis obtusis crenatis basi rotundato-truncatis utrinque glabris, pedunculis elongatis basi vel medio bracteatis, calycis dentibus subulatis, fauce intus nuda.

Thymus Douglassii. *Benth. in Linnæa* 6. 80.

Thymus Chamissonis. *Benth. in Linnæa* 6. 80.

Hab. in America boreali occidentali: ad flumen Columbia et in California septentrionali *Menzies!* *Douglas!* *Scouler!* *Chamisso!* etc. (h. s. sp.)

Rami longissimi, prostrato-repentes, tetragoni, tenuiter pubescentes. Folia inferiora pollicaria, ramealia semipollicaria, latitudine longitudinem subæquantia, margine subrevoluta, nervosa, scabra, subtus pallida, petiolo pubescente 2-4 lin. longo. Pedicelli circiter 5 lineas longi, bracteis 2 brevibus subulatis aucti, glabri. Calyx striatus, subglaber, dentibus æqualibus, fructifer basi inflatus, ovato-globosus, dentibus suberectis, corolla dimidio brevior. Corolla 4 lin. longa, purpurea, extus pubescens, labio superiore emarginato, inferioris lobo medio integro. Tubus et faux intus glabra. Stamina 2 superiora tubo subinclusa, 2 inferiora adscendentia, labium superius subæquantia. Antherarum loculi divergentes. Stylus subexsertus, lobo inferiore complanato obtuso superiorem brevioris basi involvente. Achenia subglobosa, nitida, lævia.

Those individuals which I had at first considered as a distinct species under the name of *Thymus Chamissonis*, appear to me, now that I have seen more numerous specimens, to be the same plant grown in a more open situation.

SECTIO II. PIPERELLA.

Flores subsessiles vel in capitulis sessilibus pedunculatisque glomerati. Pedicelli subnulli, vel calyce breviores. Verticillastri axillares vel subspicati. Suffrutices vel rarius herbæ. Folia integerrima, venosa, sæpe dura, floralia caulinis subconformia.

* Gerontogæ.

7. M. JULIANA, pubescens, suffruticosa, ramis erectis strictis, foliis sessilibus infimis ovatis supremis lanceolato-linearibus omnibus obtusis integerrimis margine revolutis, florum fasciculis densis breviter pedunculatis, bracteis calycem sessilem subæquantibus, dentibus calycinis subulatis rigidis latitudini tubi vix æqualibus, fauce intus nuda.

Satureia Juliana. Linn. ! Sp. 793. Sibth. et Sm. ! Fl. Græc. 6. 32. t. 540. Ten. Fl. Nap. t. 151. f. 3.

Sabbatia corymbosa. Mæench. Meth. 386.

β hirsuta.

Satureia Juliana var. canescens. Guss. ! Prod. Fl. Sic. 2. 114.

Satureia hirsuta. Presl. Del. Prag. 79. ?

Hab. in regionis Mediterraneæ collibus siccis saxosisque : in Sicilia Gussone ! regno Neapolitano Requien ! Tenore ! Dalmatia Visiani ! Peloponneso nec non Creta et Zacyntho copiose Sibthorp ! ins. Naxos Olivier ! ins. Coi et Leri infrequens Durville. β in Sicilia Gussone ! Dalmatia herb. Hooker ! (h. s. sp.)

Caules basi lignosi, procumbentes, ramosissimi. Rami pubescentes, vel in var. β hirsuti, duri, pedales et ultra, parum ramosi. Folia fere omnia ovata, suprema et floralia angustiora, verticillastros vix superantia. Pedunculi utrinque brevissimi 6-10-flori et ultra. Florum fasciculi cum pedunculo vix 2 lin. longi, densissimi. Calyces rigidi stricti, bracteis dense suffulti, glabriusculi, dentibus brevissimis subæqualibus. Corollæ minutissimæ vix calycem superantes ; labium superius brevissime emarginatum. Stamina ad faucem corollæ inserta, superiora brevissima, inferiora longiora, adscendentia, sed corolla breviora, antheræ per paria approximata, loculis linearibus demum divaricatis. Stylus corolla multo brevior, lobo superiore parum brevior, inferiore subcomplanato. Achenia oblonga, lævia.

8. M. GRÆCA, pubescens, ramis erectis vel adscendentibus, foliis sessilibus inferioribus ovatis obtusis superioribus lanceolato-linearibus omnibus integerrimis margine revolutis, florum fasciculis laxis subsecundis pedunculatis, bracteis plerumque calyce dimidio brevioribus, dentibus calycinis subulatis latitudine tubi longioribus, fauce intus villosa.

Satureia græca. Linn. ! Spec. 794. Sibth. et Sm. ! Fl. Gr. 6. 34. t. 542. Ten. Fl. Nap. t. 151. f. 2.

Thymus micranthus. Brot. Phyt. Lus. 30. t. 13.

Satureia micrantha. Hoffm. et Link Fl. Port. 1. 142.

Thymus hirtus. Russ. Nat. Hist. Alep. 2. 256.

β longiflora (Guss. Prod. Fl. Sic. 2. 117), corollis calyce duplo longioribus.

Satureia consentina. Ten. ! Fl. Nap. 3. t. 151. f. 9. Syll. 279.

γ densiflora, florum fasciculis densioribus brevius pedunculatis, calycis fauce intus minus villosa.

Satureia tenuifolia. *Ten. ! Fl. Nap. t. 151. f. 4. Prod. 33. Guss. Prod. Fl. Sic. 115.*

Micromeria tenuifolia. *Reichb. Fl. Germ. exc. 310.*

Satureia hirta. *Host. Fl. Austr. 2. 134. ?*

Thymus virgatus. *Ten. Fl. Nap. t. 155. f. 3. ex ejusd. Syll. 296.*

Satureia congesta. *Horn. ! Hort. Hafn. Spreng. Syst. 2. 720.*

Hab. in Europæ regionis Mediterraneæ collibus siccis saxosisque : in Lusitania *Brotero*, Hispania *Pavon ! Salzmann !* Corsica *Requien !* Italiæ agro Toscano *Requien !* et Neapolitano *Tenore !* in Sicilia *Gussone*, Peloponneso Græco et ins. Creta *Sibthorp !* ins. Coi et Sami rupibus rarius *Durville*, Syriæ montibus *Russell. (h. s. sp.)*

Stirps valde variabilis. Caules basi lignosi, procumbentes, ramosissimi, rami adscendentes vel erecti, glabri vel sæpius plus minusve pubescentes, pedales et ultra, parum ramosi, laxiores quam in *M. Juliana*. Folia *M. Julianæ*, sed majora sæpe subcanescentia. Pedunculi inferiores calyce longiores, superiores breviores, utrinque 2-10-flori. Bracteæ paucæ, setacæ, plerumque calyce multoties breviores, vel exteriores 2-3 calycem subæquantes. Calyces 2-4-lineares, laxi, erecto-patentes, tenuiter pubescentes, dentibus subæqualibus setaceis erectis vel demum patentibus plus minusve ciliatis. Faux intus villis nunc clausa, nunc parce ciliata. Corolla calycem parum superans, vel in var. β (qua etiam calyx longior) duplo longior ; labium superius breviter emarginatum. Stamina *M. Julianæ*. Antherarum loculi lineares, divaricati. Stylus æqualiter bifidus. Var. β distinguitur statura et floribus majoribus ; var. γ media est inter *M. græcam* et *Julianam*.

I have some hesitation in joining the *S. tenuifolia* to this species, contrary to the opinion of Gussone, stated in his excellent *Prodromus Floræ Siculæ* ; but in looking over a number of Mediterranean collections, I found so many specimens that might equally well be placed in the one and the other, and so much variation in the forms they affect, that I could assign no tangible characters to separate them.

9. *M. LANATA*, suffruticosa, procumbens, ramis adscendentibus floccoso-lanatis, foliis sessilibus linearibus integerrimis margine revolutis lanatis, verticillastris 2-6-floris, calycibus sessilibus dentibus subulatis rigidis tubi latitudine longioribus.

Satureia lanata. *Link in L. de Buch. Besch. Canar. Ins. 143.*

Hab. in ins. Canariensium montibus *Chr. Smith ! (v. s. sp. in herb. Lambert.)*

Rami floriferi 3-4-pollicares, dense foliosi et floriferi, uti folia et calyces lana brevi laxa subfloccosa canescentes. Flores plerumque in axillis solitarii, foliis floralibus subbreviores. Bracteæ subulatæ, calyce breviores. Calyces tenui. Corollæ dentes calycinos vix excedentes.

10. *M. TENUIS*.

S. tenuis. *Link in L. de Buch. Besch. Canar. Ins. 143.*

Hab. in montibus Canariensibus *Chr. Smith.*

“ *S. tenuis*, tomentosa, foliis linearibus margine revolutis recurvis rigidiusculis (cymis ?) subtrifloris pedunculatis.

“ Planta parva, subsimplex, versus apicem subramosa, erecta. Pedunculus communis 3-4 lin. longa. Pedicelli 2-3 lin. Calyx tenuissimus, 3-linearis.”—*Link l. c.*

An *Micromeria varia* vel ejus varietas ? Nulla, præter *Micromeriam variam* et *M. lanatam*, nec *Satureiæ* nec *Micromeriæ* species, exstat in herbario Banksiano vel Lambertiano a *Chr. Smith* lecta.

11. *M. VARIA*, suffruticosa, procumbens, pubescens vel villosa, foliis sessilibus inferioribus ovatis superioribus lanceolatis ad axillas subfasciculatis omnibus obtusis margine revolutis subtus subcanescentibus, floribus minutis in fasciculo sessili vel pedunculato sessilibus, bracteis

minutis, calycibus tubulosis pubescentibus folio florali brevioribus, fauce intus villosa.

Satureia varia. *Berth. et Webb. MSS.*

Thymus ericæfolius. *Roth. Cat. 2. 50. ex Willd. Enum. 624. Reichb.!*

Thymus inodorus. *Benth. in Linnæa 6. 77. non Desf.*

Hab. in ins. Canariensibus! vulgarissima *Webb et Berthelot*, in Madera! Teneriffa! et Porto Santo! et in ins. Sancti Nicolai *Forbes!* (*h. s. sp.*)

Caules ramosissimi, lignosi, procumbentes, rami procumbentes, adscendentes vel erecti, cano-tomentosi pubescentes vel rarius glabri, dense foliosi. Folia utrinque tomento brevissimo canescentia, vel rarius pubescentia vel glabra, inferiora pauca, ovata, media et superiora lanceolato-linearibus, floralia conformia, calyces sæpissime superantia. Fasciculi florum utrinque 2-10-flori, sæpius sessiles, pedunculo nunc 1-3-linearibus. Pedicelli brevissimi. Calyces recti, tenuissime pubescentes, vix $1\frac{1}{2}$ lin. longi, sæpe purpurascens. Corollæ vix calycem excedentes.

12. *M. APPROXIMATA* (Reichb. Fl. Germ. Exc. 859), suffruticosa, procumbens, pubescens vel villosa, foliis sessilibus lanceolatis superioribus linearibus subfasciculatis omnibus obtusiusculis margine subrevolutis, floribus breviter pedicellatis, bracteis pedicellum æquantibus, calycibus tubulosis pubescentibus, fauce intus villosa.

Satureia fasciculata. *Rafin. Préc. des Découv. 39.*

Satureia approximata. *Biv. Manip. 5. 13.*

Thymus fruticulosus. *Bert. Amæn. Ital. 101.*

Hab. in Europæ Mediterraneæ australioris collibus siccis: in Sicilia *Gussone!* Regno Neapolitano *Tenore!* Albania *Von Welden (Reichenbach).* (*h. s. sp. comm. a cl. Gussone.*)

M. variæ valde affinis, differt floribus subduplo majoribus (magnitudine *M. græcæ*) et foliis longioribus, cæterum villositate et habitu uti species præcedens variat. Calyx 2-2 $\frac{1}{2}$ lin., uti folia et rami sæpe hirsutus. Corolla calyce dimidio longior.

13. *M. INODORA*, suffruticosa, ramis pubescentibus, foliis sessilibus numerosissimis fasciculatis parvis lanceolatis obtusis margine revolutis canescentibus ciliatis, verticillastris paucifloris, floribus in fasciculis foliorum subsessilibus, bracteis minutis, calycibus tubulosis glabriusculis, fauce intus villosa.

Thymus inodorus. *Desf. Fl. Atl. 2. 30. t. 129.*

Hab. in Algeriæ collibus aridis et incultis *Desfontaines!* (*v. s. sp. in herb. Vahl.*)

Frutex ramosissimus, erectus, fere pedalis. Folia minima perennantia, rigidula, aciformia. Corolla purpurea calyce longior, magnitudine *T. Serpylli* (Desf.). Labium superius integrum obtusum, inferioris lobis subæqualibus rotundatis. Glandulæ nullæ aut rarissimæ.

Ab affinibus *M. varia* et *M. fasciculata* differt caule erectiore, foliis minoribus numerosissimis angustioribus.

14. *M. DENSIFLORA*, suffruticosa diffusa glabra, ramis abbreviatis, foliis approximatis sessilibus lanceolato-linearibus acutis margine revolutis, floralibus calycem æquantibus, verticillastris sub-10-floris, in spica ovata dense approximatis, calycibus sessilibus tubulosis glabriusculis, fauce intus villosa, dentibus lanceolato-subulatis erectis latitudinem tubi vix æquantibus.

Hab. in ins. Canariensibus *Broussonet*! (*h. s. sp. comm. a cl. Requier.*)

Suffrutex habitu fere *Thymi Serpylli* varietatis *angustifoliae*. Folia 2-3 lin. longa, supra viridia, sublucida, subtus pallida, subcanescentia. Calyces 2 lin. longi, striati, sæpius purpurascens, subbilabiati, dentibus 3 superioribus vix latioribus. Bracteæ parvæ, subulatæ. Corolla calyce parum longior, extus fere glabra. Antherarum loculi demum divaricati. Stylus subæqualiter bifidus.

15. *M. FORBESII*, pubescens, suffruticosa, procumbens, ramis adscendentibus, foliis subsessilibus ovatis obtusis basi rotundatis planis vel margine subrevolutis utrinque pubescentibus, floralibus flores subsuperantibus, verticillastris densis paucifloris, calycibus subsessilibus ovato-cylindricis, dentibus brevibus setaceis corolla brevioribus, fauce intus villosa.

Hab. in ins. Sancti Nicolai Capitis Viridis Africæ *Forbes*! (*h. s. sp. e Mus. Soc. Hort. Lond.*)

A *M. Teneriffæ* differt pubescentia, ramis validioribus, foliis majoribus numerosis, calycibus brevioribus subsessilibus; a *M. nervosa*, calycibus minus pilosis, dentibus multo brevioribus; a *M. microphylla*, calycibus subsessilibus et habitu validiore. An *M. variæ* varietas? a qua differt foliis omnibus ovatis.

16. *M. CANESCENS*.

Satureia canescens. *Guss. Pl. Rar. 228. t. 42. Prod. Fl. Sic. 2. 120.*

Hab. in Siciliæ collibus aridis calcareis *Gussone*, in collibus maritimis Japygiæ *Tenore*.

"*S. villosa-canescens*, caule gracili, foliis inferioribus ovatis, superioribus lanceolato-linearibus acutis, pedunculis axillaribus 2-7-floris solitariis binisque subsecundis, bracteolis brevibus pedicello æquilongis, calycibus pilis patulis villosissimis.

"Hæc cum descriptione *S. micranthæ Hoffm. et Link Fl. Port. 1. 142. (Micromeriæ græcæ)* fere in omnibus convenit, dumtaxat caules superne non pilis brevibus adpressis sed patentibus villosi, faux calycis pervia non villis clausa, corollæ quamvis graciles tamen calyce fere duplo longiores. Præterea, etiam icone *S. filiformis Desf. Atl. 2. t. 121* affinis, a qua foliis acutioribus, floribus in nonnullis corymbis numerosioribus, corollis gracilioribus, et bracteolarum præsentia, præcipue diversa."—*Guss. l. c.*

17. *M. NERVOSA*, pubescens, suffruticosa, ramis adscendentibus, foliis sessilibus omnibus ovatis acutis integerrimis planis vel margine vix revolutis, verticillastris multifloris superioribus approximatis, florum fasciculis laxis vix pedunculatis, bracteis brevissimis, calycibus pilosissimis dentibus setaceis patentibus, fauce intus subvillosa.

Satureia nervosa. *Desf. Fl. Atl. 2. 9. t. 121. f. 2.*

Satureia filiformis. *Ten. Prod. et Marin. Viag. Bot. 1. 299. ex Ten. Syll. Fl. Neap. 279.*

Thymus filiformis. *Sieb. ! Pl. Cret. exs. non Linn.*

Thymus Mastichina. *Sm. ! Prod. Fl. Gr. non Linn.*

Hab. in regionis Mediterraneæ collibus siccis aridis et fissuris rupium: in Atlante *Desfontaines*, Sicilia meridionali *Gussone*, regni Neapolitani maritimis *Tenore*, ins. Archipelagi Græci *Sieber*! *Swainson*! *Durville*, *Sibthorp*! etc. prope Leptim magnam Lybiæ *Viviani*. (*h. s. sp.*)

Rami 4-6-pollicares, simplices. Folia omnia ovata, inferiora latiora, basi subcordata, nervis subtus sæpe pilis brevibus hispidis, superiora angustiora, basi rotundata vel parum angustata, flores superantia et sæpe molliter villosa. Flores minores

quam in *M. græca*. Calyces pilis longis albidis patentibus dense suffulti. Corolla vix calyce longior; labium superius brevissime emarginatum. Antherarum loculi oblongi, disjuncti, demum divaricati. Achenia oblonga, lævia.

18. *M. MICROPHYLLA*, suffruticosa, glabriuscula, pubescens vel villosa-canescens, ramis filiformibus, foliis parvis ovatis oblongisve obtusis planis vel margine subrevolutis, florum fasciculis pedunculatis laxis plurifloris, bracteis pedicellos subæquantibus, calycibus ovatis glabriusculis vel breviter villosis, fauce intus subvillosa.

α glabriuscula, læte virens, pusilla, fere omnino glabra.

Satureia microphylla, α. Guss. Prod. Fl. Sic. 2. 120.

Thymus Teneriffæ. Hortul. non Pers.

Satureia Teneriffæ. Link. Enum. Hort. Berol. 2. 101. (ex exempl. in Hort. Berol. lect. at cum descr. non quadrant.)

β villosa, firmior, sæpe purpurascens vel canescens, caulibus calycibusque villosis.

Satureia microphylla, b. c. d. Guss. Prod. Fl. Sic. 2. 120. 121.

Thymus microphyllus. Durv. Enum. Pl. Arch. in Mem. Soc. Linn. Par. 327.

*Satureia filiformis. Desf. Fl. Atl. 2. 8. t. 121. f. 1. ?**

Hab. in regione Mediterranea australiore: in fissuris rupium Atlantis *Desfontaines*, in collibus aridis Siciliæ *Gussone*, regni Neapolitani *Tenore*, ins. Melitæ *Durville*, *Zuccarini*! (*h. s. c. var. α, et v. s. sp. var. β in herb. Zuccarini.*)

“Stirps uti *S. græca* (*M. græca*), quoad pubescentiam et caulis altitudinem variabilis, nec ullum firmum characterem invenio, cujus ope in species plures enumeratæ varietates dirimantur. Siquidem vel omnibus partibus glabra et late virens, vel calyce tantum pubescens, vel undique villosa-canescens. Caules filiformes graciles fere decumbentes, 2-4-pollicares, in *α* adscendentes vel erecti, firmiores et $\frac{1}{2}$ -1-pedalis, in aliis varietatibus (*β*). Folia semper parva, 1-2 lin. longa, $\frac{1}{2}$ -1 lin. lata, et ideo in omnibus varietatibus uniformia, subtus nervosa, marginibus revoluta, læte virentia et glabra in *α*, pallidiora in *β*, canescentia in *d*, et, excepta var. *α*, inferiora sæpius purpurascens. Pedunculi bractæ (folio florali) subjectæ subæquales vel parum excedentes, 1-6-flori, 1-2 $\frac{1}{2}$ lin. longi. Pedicelli vix semilineares. Bracteolæ (bractæ) lineares, setacæ, calycis basim subattingentes. Corollæ purpurascens, pubescentes, parvæ, calycis dentes subexcedentes, vel linea longiores.”—*Guss. l. c.*

19. *M. OVATA*, suffruticosa, procumbens, ramis adscendentibus villosis, foliis sessilibus ovatis obtusiusculis basi subcordatis margine revolutis utrinque pubescentibus, floralibus pedunculo brevioribus vel supremis longioribus, florum fasciculis pedunculatis laxis, dentibus brevibus setaceis, fauce intus villosa.

Satureia ovata. R. Brown! in App. to Salt. Abyss.

Hab. in Abyssinia *Salt*! (*v. s. sp. in herb. Mus. Brit.*)

* “*S. villosa*, ramulis erectis filiformibus, foliis inferioribus ovatis, superioribus lanceolatis.

“Caules ex eodem cæspite plures, fruticulosi, erecti, villosi, filiformes, simplices, 2 decimetr. Folia parva, villosa, integerrima, acuta, brevissime petiolata, margine subtus reflexa. Flores parvi, axillares, folio breviores aut vix longiores, pedicellati, pedicellis 1-3-floris. Calyx villosus, gracilis, teres, striatus, 5-dentatus, dentibus setaceis. Corolla rosea, minima, villosa. Labium superius brevius, integrum, planum, inferius trilobum, lobo intermedio majore obovato. Affinis *S. græcæ* Linn.”—*Desf. l. c.*

M. Forbesii et *microphyllæ* affinis; a priori differt ramis tenuioribus, floribus minoribus, fasciculis pedicellatis; a *M. microphylla*, foliis basi latioribus, margine valde revolutis, floralibus angustioribus: an *M. microphyllæ* var.?

20. *M. FILIFORMIS*, suffruticosa, diffusa, glabra, ramis filiformibus, foliis subsessilibus ovatis, inferioribus cordatis, superioribus basi rotundatis, omnibus obtusiusculis integerrimis planis, verticillastris subbifloris, pedicello utrinque calycem subæquante basi minute bracteato, calycibus tubulosis declinatis nutantibusve, dentibus subulatis corolla subbrevioribus, fauce intus subvillosa.

Thymus filiformis. Ait. ! *Hort. Kew.* 2. 313.

Piperella filiformis. Presl. *Fl. Sic.* xxxvi.

Cunila thymoides. Gouan ! *Herb.*

Hab. in regione Mediterranea: in insulis Balearicis ad rupes et muros vulgatissima *Cambessedes* ! in Hispania *Persoon.* (*h. s. sp.*)

M. microphyllæ habitu affinis, sed rami etiam tenuiores et folia remotiora. Calyces *M. Teneriffæ*, sed sæpius solitarii, longiusculi, pedicellati. Folia sæpius purascentia. Calyces fere 2 lin. longi, glabriusculi, dentes setacei erecti. Antherarum loculi divergentes. Stylus subæqualiter bifidus.

21. *M. PUNCTATA*, suffruticosa, ramis elongatis tenuibus tenuissime pubescentibus, foliis subsessilibus inferioribus ovatis acutis, superioribus oblongis obtusis basi angustatis margine vix revolutis supremis flores subæquantibus, florum fasciculis breviter pedunculatis, bracteis minutis, calycibus sessilibus subglabris parvis ovatis cylindricis, dentibus brevibus setaceis, fauce intus villosa.

Satureia punctata. Br. ! in *App. to Salt Abyss.*

Hab. in Abyssinia *Salt* ! (*v. s. sp. in herb. Mus. Brit.*)

Habitu *M. græcæ* affinis; characteribus, glabritie, et floribus *M. Teneriffæ* affinis: a priori differt caule foliisque viridibus subglabris et floribus minoribus; a *M. Teneriffæ* foliorum forma et calycibus. Rami in specimine semipedales. Folia distantia. Pedunculi plerumque 3-6-flori, superiores brevissimi.

22. *M. TENERIFFÆ*, suffruticosa, diffusa, glabriuscula, ramis rigidis tenuibus superne pubescentibus, foliis sessilibus ovatis acutis rigidis glabris planis, inferioribus latioribus subplicatis, superioribus sublanceolatis flores subæquantibus, florum fasciculis densis breviter pedunculatis, bracteis brevissimis, calycibus sessilibus pubescentibus cylindricis, dentibus setaceis corollam subæquantibus, fauce intus villosa.

Thymus Teneriffæ. Poir. *Dict.* 7. 650.

Thymus terebinthinaceus. Willd. *Enum. Hort. Berol.* 624.

Hab. in ins. Teneriffa *Masson* ! *Chamisso* ! *D. Don* ! *Broussonet* ! &c. (*h. s. sp.*)

A *M. microphylla* differt ramis elongatis lignosis, foliis acutioribus rigidioribus longioribus, floribus subsessilibus, calycibus elongatis tenuioribus. Corollæ minutæ.

23. *M. BIFLORA*, suffruticosa, ramosissima, cæspitosa, ramis adscendentibus pubescentibus vel pilosis, foliis sessilibus ovatis acutis planis vel margine subrevolutis rigidis glabris basi subcordatis superioribus flore brevioribus, verticillastris laxè paucifloris, bracteis pedi-

cellum subæquantibus, calycibus pedicellatis subsecundis tenuiter pubescentibus vel pilosiusculis, fauce intus villosa.

Thymus biflorus. *Hamilt. in Don. Prod. Fl. Nep.* 112.

Hab. in Indiæ orientalis montibus: in Napalia et Kamaon *Wallich!* Mussooree *Royle!* Nielgherri *Wight!* (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Wight.*)

Caules basi dense ramosissimi, ramis vix 3-4-pollicaribus, dense foliosis. Folia rigida vix 2-3 lineas longa, superiora minora, basi sæpe parum angustata. Pedunculi calyce subbreviares, utrinque sæpius 2-3-flori. Bractæ minutæ. Pedicelli breves. Flores *M. græcæ*, vel paullo minores. Calyces profunde striati. Corolla calyce dimidio longior, labium superius vix emarginatum. Stamina superiora corolla breviora, inferiora breviter exserta. Antherarum loculi oblongo-lineares, demum divaricati. Styli lobi subæquales. Vix, nisi habitu et foliis majoribus rigidioribus, a *M. Teneriffæ* differt.

24. *M. SUBCORDATA* (*Visiani MSS.*), suffruticosa, ramis brevibus suberectis subsimplicibus pubescentibus, foliis sessilibus planis lato-ovatis obtusis basi late truncato-cordatis, floralibus angustioribus, fasciculis florum secundis pedunculatis paucifloris, calycibus cylindricis pubescentibus, dentibus subulatis, fauce intus nuda, corollis exsertis.

Hab. in Dalmatia *Visiani!* (*h. s. sp. comm. a cl. Visiani.*)

Caules e basi sublignoso plures, erecti vel basi procumbentes, 3-5-pollicares. Folia crebra, latiora et minus rigida quam in præcedentibus, subtus 5-7-venia, supra et subtus ad venas pubescentia. Flores folia superantes, 3-5 laxè ad apicem pedunculi 3-4-linearis dispositi. Bractæ breves lanceolatae. Calyces breviter pedicellati, forma et magnitudine *M. græcæ*, dentibus inferioribus parum longioribus et profundius fissis, fauce intus dense villosa. Corollæ tubus dentes calycinos æquans. Species foliorum forma distinctissima.

25. *M. PIPERELLA*, suffruticosa, ramis adscendentibus pubescentibus, foliis sessilibus lato-ovatis obtusis basi rotundatis vel subcordatis utrinque glabris supremis oblongis parvis, florum fasciculis laxis pedunculatis secundis paucifloris, bracteis parvis oblongis, calycibus subsessilibus tubulosis pubescentibus, dentibus subulatis, 3 superioribus patentibus, fauce intus nuda.

Thymus Piperella. *All.! Fl. Ped.* 1. 21. t. 37. f. 3. (*male.*) *Waldst. et Kit. Pl. Rar.* 2. 169. t. 156. non *Linn.*

Thymus marginatus. *Sm. in Dicks Pl. exs. n.* 71.

Thymus croaticus. *Pers. Syn.* 2. 130.

Calamintha croatica. *Host Fl. Austr.* 2. 132.

Hab. in Europæ australioris montibus Pedemontanis *Allioni!* *Croaticis Host.* (*h. s. sp. comm. a cl. Requien.*)

Rami herbacei, 4-6-pollicares. Folia inferiora subrotunda et sæpe undulata, media 3-4-lin. longa. Verticillastri remotiusculi. Pedunculi fere foliorum floralium longitudine, utrinque 3-5-flori. Bractæ latiores quam in cæteris speciebus. Calyx elongatus ut in *M. densiflora*, sæpe purpurascens; dentes lineari-subulati, superiores patentés, inferiores erecti, cæterum subæquales. Corolla tenuiter pubescens.

26. *M. FORSKAHLEI.*

Thymus imbricatus. *Forsk.! Fl. Ægypt. Arab.* 108.

Hab. Kurmæ *Forskahl!* (*v. s. sp. in herb. Vahl.*)

“*T. caulibus decumbentibus imbricatis, foliis ovato-acutis, floribus axillaribus solitariis sessilibus.*

May 1834.

"Calyx striatus, fauce villis clausa, non bilabiatus sed 5-dentatus, sub labio superiore rima una inter lacinias profunda. Flores rubri. Caulis exiguus fruticosus."—*Forsk. l. c.*

When at Copenhagen, in 1832, I had time only to make very short notes on Forskahl's plants preserved in Vahl's herbarium, and to this plant I only find the following: "*Micromeriæ* sp. a *M. Piperella* differt foliis minimis vix nervosis (carina ciliata), dentibus calycinis brevioribus."

There is in the Banksian herbarium another plant, unnamed from Forskahl, which appears to be a *Micromeria*, allied also to *M. Piperella*, but differing from the whole section by the leaves being slightly indented. The calyx is long and slender. But the specimen is too imperfect to describe it as a new species.

27. *M. SINAICA*, suffruticosa, ramis elongatis rigidis subsimplicibus, foliis subsessilibus ovatis planis vel margine revolutis superioribus flores superantibus, florum fasciculis densis vix pedunculatis, calycibus subsessilibus ovatis, dentibus brevibus setaceis, corollis minutis.

Hab. in Arabia inter rupes deserti Sinaici *Bové!* (*h. s. sp. a cl. Bové lectam.*)

Habitus fere *M. græcæ*, a qua tamen distinctissima foliis, verticillastris densis, et calycibus minimis ovatis. Rami 1-1½-pedales, uti folia pallide virentes. Folia remota, 3 lin. longa, nervo medio prominente, lateralibus plerumque evanidis. Verticillastri 12-30-flori, omnes remoti. Flores in hoc genere minimi. Calyces vix lineam longi, sæpe colorati.

* * *Australasicæ.*

28. *M. SATUREIODES*, glabra, caulibus erectis ramosis, foliis subsessilibus subellipticis lanceolatisve obtusis planis, verticillastris laxis 8-10-floris, calycibus tenuissime pubescentibus cylindricis, dentibus abbreviatis lanceolatis, fauce intus villosa, corollis calycem vix excedentibus.

Mentha satureioides. *Br. Prod.* 505?

Hab. in Australasia ad lacum George Novæ Hollandiæ *A. Cunningham!* ad Portum Jackson *R. Brown?* (*v. s. sp. in herb. Hooker.*)

Caules tenues basi radicales. Rami erecti, 4-5-pollicares, sæpe purpurascens, angulis in speciminibus suppetentibus vix scabriusculis. Folia 5-6 lin. longa, uninnervia, vel venis lateralibus utrinque 1-2 vix conspicuis. Pedunculi vix lineam longi. Calyces breviter pedicellati, in quoque fasciculo 3-5, superne parum dilatati. Bractee vix pedicellum æquantes. Stamina in speciminibus suppetentibus inclusa.

29. *M. AUSTRALIS.*

Mentha australis. *Br. Prod.* 505.

Hab. in Australasia ad Portum Jackson et in Terra Van Diemen *R. Brown.*

"*M. floribus verticillatis staminibus exsertis, corollæ labio superiore bilobo, calycibus tomentosis, dentibus basi intus obsolete barbatis, foliis lanceolatis, caulibus adscendentibus angulis marginatis scabris.*"—*Br. l. c.*

30. *M. ? GRACILIS*, glabra vel tenuiter pubescens, pallide virens, caulibus erectis, foliis breviter petiolatis ovatis vel superioribus ovato-lanceolatis obtusis planis, verticillastris subsexfloris, calycibus pubescentibus cylindrico-subcampanulatis, dentibus lanceolatis acutis tubi latitudine brevioribus, fauce intus nuda, corollis calycem vix excedentibus.

Mentha gracilis. Br. Prod. 505? * non Sm.

Mentha diemenica. Spr. Syst. 2. 724.

Hab. in Australasia : Terra Van Diemen R. Brown? Gunn! Scott!
(h. s. sp. comm. a cl. Lindley.)

A *M. satureioides* differt foliis præsertim basi latioribus, pubescentia, et calycibus majoribus sessilioribusque, fauce intus nuda. Folia subtus venosa, utrinque pubescentia, brevissima, præsertim in parte caulis superiore canescentia. Stamina exserta, vel inclusa. In exemplaribus Scottianis folia latiora et sessiliora, sed planta junior videtur. Habitu a *M. satureioides* non disjungenda, at staminibus certe distantibus rectis nec adscendentibus a *Micromeriis* recedit.

* * * *Americanæ.*

31. *M. OBOVATA*, caule fruticoso divaricato ramosissimo, foliis obovatis obtusis integerrimis basi angustatis margine revolutis rugosis utrinque canescentibus, floribus subsessilibus.

Satureia viminea. Linn. Amœn. Acad. 5. 399. Swarz.! obs. 226.

Satureia incana. Spr. Syst. 2. 719.

Zygis aromatica. Desv. in Hamilt. Prod. Fl. Ind. Occ. 46.

Xenopoma obovatum. Willd. Colla! Hort. Rip. 147. t. 25.

Mentha viminea, &c. Browne Jam. 258.

Hab. in Jamaica! (h. s. c. et sp.)

Fruticulus canescens, diffusus, vel erectus; ramis divaricatis elongatis, abbreviatis, tetragonis, pubescentibus. Folia vix semipollicaria, supra rugosa, aspera, subtus canotomentosa, in speciminibus cultis viridiora, subplana, vix rugosa. Flores pauci, foliis breviores, brevissime pedicellati. Bracteæ minutissimæ subulatæ. Calyx extus canescens, profunde striatus, fructifer vix inflatus, dentibus subpatentibus, acutis, lanceolatis setaceisque, 2 inferioribus vix latioribus. Corolla calyce subduplo longior, $3\frac{1}{2}$ -linearis, recta, fauce vix dilatata, extus pubescens; labium superius breve, rectum, bifidum, lobis obtusis rotundatis, inferioris lobi rotundati abbreviati, medio latiore integro; tubus intus ad faucem villosus. Stamina superiora tubo subinclusa, inferiora corollam subæquantia, adscendentia. Antherarum loculi paralleli. Stylus glaber, corollam æquans, lobo inferiore complanato, superius brevissimum basi involvente. Achenia subglobosa, nitida, lævia.

32. *M. NUBIGENA*, procumbens, ramosissima, hispida, foliis parvis petiolatis lato-ovatis obtusis integerrimis, verticillastris bifloris, calycibus subsessilibus, dentibus subæqualibus acutis, fauce intus villosa.

Thymus nubigenus. Humb. et Kunth! Nov. Gen. et Sp. Amer. 2. 316.

Hab. in Peruvia locis asperrimis montium ignovomorum Puracé et Rucu-Pichincha Humboldt et Bonpland! ad Surucuchu Jameson! (v. s. sp. in herb. Hooker.)

Habitus fere *Thymi Serpylli*. Caules basi perennes sublignosi. Rami pubescentes, superne hispidi. Folia vix ultra lineam longa, plana, utrinque hispida; floralia conformia, calyces subæquantia. Calyces molliter hispidi, 13-striati, dentibus brevibus rectis. Corolla calyce subduplo longior, extus pubescens.

33. *M. GILLIESII*, procumbens tenuissime pubescens, foliis sessilibus oblongis obtusis integerrimis, verticillastris subbifloris, calycibus subsessilibus dentibus rigidis subrevolutis, fauce intus subvillosa.

* "M. floribus verticillatis, staminibus inclusis, calycibus cylindricis extus tomentosis, laciniarum marginibus pilis inflexis barbatis, corollæ labio superiore emarginato, foliis lanceolato-ovatis subtus punctatis, caule erecto."—Br. l. c.

Hab. in America meridionali prope Mendoza *Gillies!* (v. s. sp. in *herb. Hooker et Lindley.*)

Caulis suffruticosus procumbens (?), ramis acute tetragonis, tenuissime pubescentibus. Folia parva, sessilia, oblongo-obtusa, basi rotundata, integerrima, subplana, utrinque tenuissime pubescentia, subtus dense glandulosa, 3-4 lin. longa, 1-2 lata, floralia conformia. Verticillastri biflori vel inferiores rarius sub 6-flori, folio duplo breviora. Bracteæ parvæ, setaceæ. Calyx subsessilis, ovatus, striatus, pubescens, glandulosus, intus fauce parce villosus; dentes breves, subæquales, setacei, patentes rigidi. Corolla vix calyce longior, intus extusque glaberrima, labio superiori brevissime emarginato, suberecto, inferioris lobi æquales, obtusi, patentes, integerrimi. Stamina tubo inclusa. Filamenta brevia. Antheræ biloculares, loculis parallelis. Styli lobi complanati, demum revoluti. Stigmata submarginalia. Achenia oblonga, oculo armato tenuissime pubescentia.

SECTIO III. PSEUDOMELISSA.

Verticillastrorum cymæ elongatæ, pedunculatæ, subdichotomæ. Folia sæpe dentata. Herbæ Europææ.

Plantæ forsitan ad *Melissam* referendæ.

34. *M. PULEGIUM*, herbacea adscendens pubescens, foliis petiolatis ovatis dentatis utrinque viridibus, racemis coarctatis secundis, cymis subdichotomis paucifloris, calycis dentibus setaceis subæqualibus, fauce intus villosa.

Melissa Pulegium. Röchel! Del. Pl. Rar. Banat. 62. t. 22. f. 8.

Calamintha organifolia. Host Fl. Austr. 2. 120.

*Melissa subnuda. Waldst. et Kit. Pl. Rar. 3. 296. t. 262?**

Calamintha subnuda. Host Fl. Austr. 2. 130?

Thymus subnudus. Spreng. Syst. 2. 698.

Hab. in Banatu ad rupes thermarum Herculis *Röchel!* in agro Fluminense *Host. (h. s. sp. comm. a cl. Schultz.)*

Caules erecti, subsimplices, pilis brevissimis reflexis cano-pubescentibus. Folia infima, subrotunda, obtusa, vix dentata, superiora acuta et acute dentata, basi rotundata, omnia rugosa, pilis brevibus hispidula. Racemi vix semipedales. Cymæ pedunculatæ. Bracteæ pedicelli subbreviores. Calyces *M. græcæ*, cylindrici, striati, erecti, dentibus latitudine tubi longioribus. Corolla calyce subduplo longior, forma *Satureiæ*.

35. *M. MARIFOLIA*, incana, adscendens, foliis ovatis oblongisve obtusis subintegerrimis supra canescentibus subtus albidis, racemis laxis multifloris, calycis dentibus obtusis subæqualibus, fauce intus villosa, corollis calyce subduplo longioribus.

Melissa fruticosa. Linn.! Spec. 828.

Melissa cretica. Lam. Dict. 4. 79. et Auct. plur. non Linn.

Calamintha cretica. Lam. Fl. Fr. 2. 395.

Nepeta cretica. Dietr. ex Steud. Nom. Bot. 521.

Thymus creticus. DC. Fl. Fr. 3. 564. non Brot.

* According to Reichenbach, the *Melissa subnuda* *Waldst. et Kit.* and the *M. Pulegium* *Röchel.* are the same; and although Kitaibel's figure does not shew the remarkably subulate teeth of the calyx, I am inclined to think that this is the plant intended to be represented. Mr. Host has in his garden at Vienna a variety of *Melissa Nepeta* under the name of *Calamintha subnuda*, but that must be a blunder.

- Thymus Barrelieri. *Spreng. Syst.* 2. 698.
 Melissa marifolia. *Pers. Syn.* 2. 132.
 Nepeta marifolia. *Cav. Ic. Rar.* 6. 55. t. 576.
 Bystropogon marifolius. *Juss. ex Steud. Nom. Bot.* 521.
 Thymus marifolius. *Willd. Enum.* 2. 624.
 Nepeta serpyllifolia. *Bieb. Fl. Taur.-Cauc.* 2. 40. *Cent. Pl. Ross.* 1. t. 28.
Reichb. Icon. Bot. Eur. 3. 16. t. 219.
 Nepeta parvifolia. *Hortul.*

Hab. in Europæ et Asiæ mediterranææ necnon Tauriæ siccis saxosis cretaceis: in Lusitania *Martius!* Hispania *Pavon!* Syria prope Nazareth et ad montem Libanum *Bové!* Tauria *Bieberstein!*; in floris Sicilianis Italicisque non occurrit, in Pedemonte et Gallia australi citatur sed dubia civis. (*h. s. sp.*)

Suffrutex. Rami divaricati, 1-2-pedales, uti folia et calyces tomento tenui cani. Folia vix 3-4 lin. longa, nunc integerrima nunc leviter sinuata vel dentata, plana, paucivenia. Racemi elongati. Cymæ laxæ, pedunculatæ, dichotomæ. Folia floralia inferiora pedunculo longiora, superiora breviora. Bractææ minutæ. Calyces ovato-tubulosi, erecti, striati, faucis villis dentes sæpius superantibus. Corolla calyce plus duplo longior. Habitus fere *Melissarum* sectionis *Calaminthæ*, sed calyx omnino *Micromeriæ*.

Species non satis nota.

36. M. PARVIFLORA (*Reichb. Fl. Germ. Exc.* 859).

Satureia parviflora. *Vis. Plant. Rar. Dalm. in Bot. Zeit.* 1829, 1. *Erganzbl.* 13.

Satureia inodora. *Host. Fl. Austr.* 2. 135. *ex Reichb. l. c.*

Hab. in Dalmatiæ extremo confinio prope Albaniam in montibus Pastrovich *Visiani*.

“S. caule fruticuloso pubescente ramoso, foliis lanceolato-linearibus margine revolutis, glabris, pedunculis axillaribus oppositis subtrifloris folia subæquantibus, pedicellis inæqualibus, bracteis duplo longioribus, floribus post anthesin cernuis, calycibus labiatis fauce villosis, dentibus ciliatis, 3 superioribus brevioribus latioribusque. Florum characteres potius *Thymi* quam *Satureiæ*. Habitus tamen et affinitas stirpis cum *S. græca*, *Satureiam* esse ostenderunt. Differt ab hac specie foliis multo angustioribus glabris, floribus longe pedicellatis paucioribus, calycis dentibus forma et longitudine inæqualibus.”—*Vis. l. c.* Verosimiliter varietas *M. græcæ*.

Species e genere excludendæ.

M. MONTANA *Reichb.* = *Satureia montana*.

M. PYGMÆA *Reichb.* = *Satureia montana*.

M. SPICATA *Reichb.* = *Satureia virgata*.

M. VARIEGATA *Reichb.* = *Satureia montana*.

XLVII. MELISSA.

Melissa, Clinopodium et Thymi sp. *Linn. et Auct.*

Calamintha et Acinos. *Mænch. et Auct.*

Calyx tubulosus, 13-nervius, sæpius striatus, bilabiatus, labio superiore sæpius patente tridentato, inferiore bifido, fauce intus nuda

vel villosa. Corollæ tubus rectus vel incurvo-adscendens, intus nudus, sæpius exsertus; faux sæpius inflata; limbus bilabiatus, labium superius erectum, subplanum, integrum vel emarginatum, inferius patens, lobis planis, medio sæpius latiore, integro vel emarginato. Stamina 4, didynama, inferioribus longioribus, adscendentia, apice per paria approximata vel rarissime subdistantia, superiora interdum sterilia. Filamenta edentula. Antheræ liberæ biloculares; connectivum sæpe incrassatum; loculi distincti paralleli, divergentes vel demum divaricati. Styli lobi nunc æquales, subulati, stigmatibus minutis terminalibus, nunc inferior elongatus, recurvus, complanatus, margine stigmatifer. Achenia sicca, lævia. Suffrutices vel sæpius herbæ, inflorescentia varia. Flores purpurascens, albid, vel flav.

The *Melissæ* of the sections *Calamintha*, *Acinos*, *Clinopodium*, and *Meliphyllum*, are European, Mediterranean, and North Asiatic. *Calomelissa* contains one American species; *Macromelissa* an American and a European one; and *Heteromelissa* an East Indian one.

Whether the characters be derived from the parts of fructification or from general habit, the circumscription of this and the nearly related genera of *Hedeoma*, *Micromeria*, *Gardoquia*, and *Keithia*, is attended with much difficulty; and it might, perhaps, have been a clearer classification, if the whole had been considered as forming one extensive genus, as in the case of *Salvia*, *Hyptis*, *Teucrium*, &c. The relative proportion, direction, and size of the upper and lower teeth of the calyx, the hairs at the orifice, the proportion of the corolla to the calyx, the fertility or sterility of the upper stamina, the relative situation of the two lobes of the anthers, the form of the extremity of the style, and even the general direction of the stamina—characters which, in the rest of the tribe, are more or less constant—are remarkably uncertain in the present series, and seldom correspond with the differences of habit and inflorescence. These differences, on the other hand, are too vague and difficult of definition to be available for the purpose of generic distinctions. Whilst, therefore, I have endeavoured, as in other instances, to take the organs of fructification as the basis of generic, and the inflorescence and habit of sectional characters, I am fully aware that there are many species which may be nearly as well placed in either of two or more sections or genera; but every day brings further proof of the impossibility of reducing Nature to any thing like mathematical accuracy.

CONSPECTUS SPECIERUM.

SECT. I. CALAMINTHA. *Racemi laxi, subsecundi. Cymæ pedunculatæ, dichotomæ (saltem inferiores). Calyx basi vix gibbus, fauce intus villosa.*

Verticillastri superiores condensati, pauciflori, subaxillares.

Caules et folia incano-tomentosa . . . 1. M. INCANA.
Caules et folia hirsuta . . . 2. M. CRETICA.

Cymæ omnes laxæ, dichotomæ.

Planta subcanescens. Folia ovata vix crenata. Corolla calyce parvo subduplo longior . . . 3. M. THYMIFOLIA.

- Planta fere glabra. Corolla calyce parvo vix longior 4. M. GLANDULOSA.
 Planta villosa, folia lato-ovata.
 Corolla calyce dimidio vel vix duplo longior 5. M. NEPETA.
 Corolla calyce plus duplo longior 6. M. CALAMINTHA.

SECT. II. CALOMELISSA. *Verticillastri multiflori, æquales, condensati. Calyx fauce intus villosa.*

- Species unica 7. M. CAROLINIANA.

SECT. III. ACINOS. *Verticillastri sub-6-flori, pedicellis brevibus rigidis. Bracteæ subnullæ. Calyx basi infra gibbus, fauce intus villosa.*

- Calycis labia tubo æquilonga 12. M. GRAVEOLENS.
 Calycis labia tubo breviora.
 Corolla vix calycem excedens 8. M. ACINOS.
 Pusilla, subglabra. Folia subrotunda. Corolla calyce subduplo longior 10. M. MICROPHYLLA.
 Diffusa, pubescens vel villosa. Folia lato-ovata. Corolla calyce plus duplo longior 11. M. ALPINA.
 Adscendens, pubescens. Folia ovata, subglabra. Corolla calyce vix duplo longior 9. M. PATAVINA.

Species 13-14, non satis notæ.

SECT. IV. CLINOPODIUM. *Verticillastri multiflori vel laxe pauciflori, æquales, pedunculo communi subnullo. Bracteæ subulatæ, nunc minutæ, nunc calycem æquantes. Calyx fauce intus nuda, vel parum villosa.*

- Bracteæ calyce breviores.
 Verticillastri pauciflori 15. M. DEBILIS.
 Verticillastri multiflori 16. M. UMBROSA.
 Bracteæ calycem æquantes.
 Caulis herbaceus. Folia plerumque crenata.
 Diffusa ramis elongatis procumbentibus.
 Verticillastri numerosi 17. M. REPENS.
 Erecta vel adscendens. Verticillastri pauci 19. M. CLINOPODIUM.
 Caulis suffruticosus. Folia omnia integerrima 18. M. ORIGANIFOLIA.

SECT. V. MELIPHYLLUM. *Verticillastri pauciflori, laxiusculi, secundi. Bracteæ paucæ sæpius ovatæ. Calyx patens, fauce intus nuda, vel vix pilosa. Corolla flava vel albida.*

- Folia lato-ovata, basi truncata vel cordata. Planta sæpius villosa 20. M. OFFICINALIS.
 Folia ovata vel ovato-lanceolata, basi rotundato-cuneata. Planta subglabra.
 Corolla calyce vix longior 22. M. PARVIFLORA.
 Corolla calyce subtriplo longior 23. M. FLAVA.
 Species dubia javanica 21. M. HIRSUTA.

SECT. VI. MACROMELISSA. *Verticillastri laxi sæpius pauciflori, cymis umbellæformibus subdichotomis. Calyx patens, fauce intus nuda, vel vix pilosa. Corolla purpurascens vel coccinea. Stamina subdistantia.*

- Herba (Europæa) 24. M. GRANDIFLORA.
 Frutex (Americana) 25. M. MACROSTEMA.

SECT. VII. HETEROMELISSA. *Verticillastri irregulares secundi. Calyx elongatus vix bilabiatus, dentibus rectis subæqualibus.*

Species unica 26. M. LONGICAULIS.

SECTIO I. CALAMINTHA.

Calamintha. *Mæench. Meth.* 408.

Racemi laxi, subsecundi. Verticillastrorum cymæ utrinque pendunculatæ, dichotomæ. Bracteæ minutæ. Calyx subteres, striatus, basi vix gibbus, fauce intus villosa.

1. M. ? INCANA, herbacea vel basi suffruticosa procumbens, ramis adscendentibus cano-tomentosis, foliis petiolatis parvis orbiculatis subintegerrimis utrinque cano-tomentosis, racemis subsecundis, verticillastris paucifloris, cymis vix dichotomis, calycibus breviter bilabiatis, fauce intus villosa, corollis calyce vix duplo longioribus.

Thymus incanus. Sibth. et Sm. ! Fl. Gr. 6. 62. t. 577.

Melissa cretica. Russ. ! Nat. Hist. Alep. non Linn.

Hab. in regione Mediterranea orientali: in Archipelagi Græci insulis frequens et ad Athenas *Sibthorp !* in Syria prope Aleppo *Russell !* (v. s. sp. in herb. *Sibth. et Banks.*)

Species inter *Melissam* et *Micromeriam* fere media. Folia 3-linearia, utrinque tomento molli, uti rami et calyces cana. Verticillastri superiores condensati, inferiores laxiores. Bracteæ minutæ.

2. M. ? CRETICA (Linn. ! Spec. 828), herbacea humilis basi procumbens, ramis adscendentibus piloso-hispidis, foliis petiolatis parvis subrotundis obtusis subintegerrimis utrinque molliter villosissimis, racemis subsecundis, cymis vix dichotomis paucifloris, calycibus breviter bilabiatis, fauce intus villosa, corollis calyce vix duplo longioribus.

Thymus hirtus. Sieb. ! Pl. exs. non alior.

Hab. in Creta *Linnæus, Sieber !* (h. s. sp.)

Affinis M. *incanæ*, sed diversa caule foliisque villosissimis, nec tomento tenui canis. Cymarum inferiorum pedunculus communis 2 lin. longus, superiorum brevior vel nullus. Exemplar Linnæanum minus villosum quam Sieberiana.

3. M. THYMIFOLIA, caule herbaceo adscendente cano-pubescente, foliis petiolatis ovatis obtusis vix crenatis basi cuneatis rotundatisve subcanescentibus, racemo laxo secundo, cymis dichotomis, floribus parvis, calycibus brevissime bilabiatis dentibus acutis, corollis calyce subduplo longioribus.

Calamintha thymifolia. Host ! Fl. Austr. 2. 132.

Satureia thymifolia. Scop. Fl. Carn. 1. 428. ex Host, sed verosimiliter ad Satureiam rupestrem referenda.

Hab. in Carniolie rupestribus murisque vetustis agri Idriensis *Scolopi, Hladnik (Host) (h. s. c.)*

Quasi media videtur inter *Micromeriam marifoliam* et *Melissam Nepetam*. Folia vix semipollicaria, nunc integerrima, sæpius obscure crenata, subtus venosa,

dense glanduloso-punctata, supra tomento tenuissimo subcanescentia. Racemus minus diffusus quam in *M. Nepeta*. Flores parum minores. Calyces tenuiores vix bilabiati, dentibus omnibus brevibus setaceo-aristatis, tribus superioribus patentibus, binis inferioribus erectis. Faux villis clausa. Corolla glabriuscula, pallide purpurascens. Faux dilatata, labium superius emarginatum, inferius patens, lobo medio vix emarginato.

This plant, which I gathered in Mr. Host's garden at Vienna, is certainly very different from the *Satureia rupestris*, to which Scopoli's synonym is usually referred, and cannot be confounded either with *M. Nepeta* or *Micromeria marifolia*, but partakes so much of the characters of both, that I should be inclined to consider it as an accidental hybrid; and if that be verified, it should be erased from the list of species. I have never seen a wild specimen; and other plants, cultivated under the same name in the Vienna garden, were the common *M. Nepeta*.

4. *M. GLANDULOSA*, caule herbaceo, ramis subglabris, foliis petiolatis lato-ovatis acutiusculis grosse serratis basi rotundatis subglabris, racemis laxissimis paucifloris secundis, cymis dichotomis, calycibus bilabiatis dentibus acutis, corollis calyce parvo vix longioribus.

Thymus glandulosus. Req. ! in Ann. Sc. Nat. Par. 5. 386.

Hab. in Corsica *Requien ! (h. s. sp. comm. a cl. Requien.)*

Rami patentés, virides, tennes, pilis brevissimis subpubescentes, vix tetragoni. Folia $\frac{1}{2}$ -1-pollicaria, longiuscule petiolata, serraturis paucis profundis, tenuia, utrinque viridia, subtus paucinervia, floralia gradatim minora. Cymæ laxè dichotomæ. Bracteæ parvæ, lineares. Flores minuti. Calyces virides vix pubescentes, dentes labii superioris lati, breviter aristati, patentés, inferioris subulati, erecti. Faux intus villis clausa. Corolla alba vel pallide purpurascens.

5. *M. NEPETA* (Linn. ! Spec. 828), caule herbaceo, ramis procumbentibus adscendentibus suberectisve villosis, foliis petiolatis lato-ovatis obtusis crenatis basi rotundatis utrinque villosis subtus pallidis, racemo elongato laxo multifloro secundo, cymis dichotomis, calycibus breviter bilabiatis dentibus subulatis, corollis calyce dimidio vel vix duplo longioribus.

Thymus Nepeta. Sm. Fl. Brit. 2. 642. Eng. Bot. 20. t. 1414. Hook. Fl. Lond. v. 1. Ic.

Calamintha parviflora. Lam. Fl. Fr. 2. 396.

Calamintha trichotoma. Mæneh. Meth. 409.

Thymus diffusus. Hortul.

Thymus Brauneanus. Hoppe.

Calamintha rotundifolia. Host ! Fl. Austr. 2. 131.

Calamintha obliqua. Host ! Fl. Austr. 2. 131.

Calamintha Nepeta. Hoffm. et Link. Fl. Port.

*Calamintha canescens. Presl. Fl. Sicul. xxxvii. ?**

β athonica, humilior, glabrior, foliis viridioribus.

Thymus athonicus ! Bernh. ex Reichb. Pl. Germ. exc. 329. sub. n. 2242.

Calamintha athonica. Reichb. l. c.

Melissa ætheos. Hortul.

Hab. in Europæ præsertim australioris siccis, ruderatis, ad vias, &c. : in Anglia *Smith et Auct.*, Gallia meridionali a Burdigali ! ad Lugdunum ! in Lusitania *Brotero*, Hispania *Pavon !* in Italia a Pedemontio !

* "C. caule ramoso adscendente villosa, foliis subsessilibus ovatis canescenti-pubescentibus punctatis, calycis tomentoso-incani dentibus inferioribus rectis, superiores patentés duplo superantibus."—*Presl. l. c.*

ad regnum Neapolitanum *Tenore*, in Istria *Reichenbach*, Græcia et Archipelagi insulis *Sibthorp*! Tauria meridionali *Bieberstein*. (v. v. et h. s. sp.)

Caulis decumbens vel adscendens. Rami elongati, subtetragoni, dense villosi. Folia semipollicaria vel vix pollicaria, rugosa, supra intense viridia, subtus sæpe incana, floralia minora, suprema minuta. Racemi elongati. Flores numerosi. Bracteæ minutæ, oblongæ. Calyces secus ramos cymarum breviter pedicellati, ovati, striati, virides vel purpurascens. Dentes superiores breves, ovati, acuti, inferiores subulati, longiores vel rarius omnes subæquales. Barba faucis dentibus superioribus nunc brevior, nunc (in eodem specimine) subæqualis. Corolla albida vel pallide purpurascens, punctis intensioribus notata. Antherarum connectivum crassum, loculi distincti divergentes.

6. *M. CALAMINTHA* (Linn.! Spec. 827), caule herbaceo, ramis adscendentibus villosis, foliis petiolatis lato-ovatis obtusiusculis serrato-crenatis basi rotundatis truncatisve utrinque viridibus villosis, racemo laxo secundo, cymis laxissimis subdichotomis paucifloris, calycibus distincte bilabiatis dentibus subulatis inferioribus elongatis, corollis calyce plus duplo longioribus.

Thymus calamintha. Scop. Fl. Carn. ed. 2. n. 733. Sm. Eng. Bot. 24. t. 1676.

Calamintha montana α. Lam. Fl. Fr. 2. 396.

Calamintha officinalis. Mærch. Meth. 409.

Calamintha menthæfolia. Host! Fl. Austr. 2. 129.

Thymus umbrosus. Spreng.! Cent. Sp. min. Cog. 41.

Calamintha umbrosa. Reichb. Fl. Germ. exc. 329.? excl. Syn. plur.

Melissa intermedia. Baumg.? ex Reichb. l. c.

Melissa umbrosa. Auct. Germ. non Bieb.

β *villosissima*.

Thymus calaminthoides. Reichb.! Fl. Lusit. Mad. exs.

Hab. in Europæ mediæ et australis et Asiæ mediæ collibus, sylvis apertis, &c.: in Anglia! Gallia! Germania! media et australi *Reichenbach*, Lusitania *Brotero*, Hispania *Pavon*, Italia omni *Allioni*! *Tenore*! &c., Græcia et prope Byzantium *Sibthorp*! Armenia et Iberia *Bieberstein*, *Meyer*, &c.; β in Hispania! et ins. Canariensibus! (v. v. et h. s. sp.)

Caules erectiores et firmiores quam in *M. Nepeta*. Folia majora sæpe sesquipollicaria. Flores pauciores. Calyx fere duplo major, profundius bilabiatus. Corollæ purpurascens. Var. β villosior et folia minora, sed ob magnitudine florum et calycum forma huc nec ad *M. Nepetam* referenda.

SECTIO II. CALOMELISSA.

Verticillastri multiflori, subæquales, condensati. Bracteæ ovatae vel oblongæ. Calyx fauce intus villosa.

7. *M. CAROLINIANA*, herbacea? glabra, foliis petiolatis ovatis obtusis subcrenatis basi angustatis, verticillastris subæqualibus multifloris condensatis, calycis fauce intus villosa, corollis calyce duplo longioribus.

Thymus carolinianus. Mich. Fl. Bor. Amer. 2. 9.

Calamintha caroliniana. Sweet Hort. Brit. 409.

Thymus grandiflorus. *Sims ! Bot. Mag.* 25. t. 997.
Calamintha grandiflora. *Pursh Fl. Amer. Sept.* 2. 414.

Hab. in America boreali: in Carolina *Fraser ! Wray ! &c.*, Georgia *Bartram !* ad Covington in Louisiana *Drummond ! (h. s. sp.)*

Rami floriferi elongati, virgati, glabri vel tenuissime pubescentes. Folia glaberrima, semipollicaria vel vix pollicaria, plana, nervo medio subtus prominulo, floralia calyces superantia. Pedunculi communes utrinque breves, 3-10-flori. Bracteæ foliis subconformes, exteriores calycibus longiores, interiores gradatim minores et angustiores. Calyx 2-3 lin. longus, glaberrimus, profunde striatus. Corolla fere pollicaris, glaber. Stamina sub labio superiore laxè adscendentia. Styli lobi subæquales, subulati.

SECTIO III. ACINOS.

Acinos. *Mæench. Meth.* 407.

Verticillastri sub-6-flori, pedicellis erectis brevibus rigidis. Bracteæ minutæ vel nullæ. Calyx basi infra gibbus, subteres, profunde striatus, fauce intus villosa.

8. M. ACINOS, herbacea, annua, suberecta, pubescens vel villosa, foliis ovatis subserratis, floralibus conformibus flores superantibus, verticillastris 6-floris, calycibus subsessilibus, labiis brevibus, corollis vix calycem excedentibus.

Thymus Acinos. *Linn. Spec.* 826. *Hook. Fl. Lond.* v. 1. ic. *Sm. Eng. Bot.* 6. t. 411.
Acinos thymoides. *Mæench. Meth.* 407.
Acinos vulgaris. *Pers. Syn.* 2. 131.
Thymus heterophyllus. *Poir. Dict.* 7. 648. ?
Thymus canescens. *Dumort. Florul. Belg.* 47.
Calamintha arvensis. *Lam. Fl. Fr.* 2. 394.

β villosus.

Acinos villosus. *Pers. Syn.* 2. 131. ?

Hab. in Europæ arvis vulgaris: a Scotia *Hooker*, Anglia! Suecia *Wahlenberg*, et Petropoli *Sobolewski*, ad Lusitaniam *Brotero*, Neapolim *Tenore*, et Græciam *Sibthorp !* etiam in regione Caucasico-Caspico *C. A. Meyer (v. v. et h. s. sp.)*

Herba annua. Caules circiter semipedales, ramosi, sæpe basi procumbentes, ramis subpurpurascentibus plus minusve villosis. Folia obtusiuscula, basi angustata, superiora angustiora, acutiora, omnia utrinque viridia, mollia, subtus venosa. Verticillastri distantes. Bracteæ minutæ vel nullæ. Pedicelli erecti, rigidi, complanati, lineam longi. Calyces 3-4-lineares, profunde 13-striati, hispidi; labium superius latum, dentibus 3 subulatis, divaricatis; lacinia labii inferioris labium superius æquantes. Corollæ purpureo-cæruleæ; labium superius et lacinia media labii inferioris integra. Antherarum loculi subdivaricati. Styli lobus inferior complanatus. Achenia lævia.

9. M. PATAVINA, herbacea, adscendens, pubescens, foliis petiolatis ovatis acutis vix serratis venosis subglabris, floralibus conformibus calyce longioribus, calycis labiis tubo brevioribus, corollis calyce vix duplo longioribus.

Thymus patavinus. *Jacq. Obs. Bot.* 4. 7. t. 87.
Acinos patavina. *Pers. Syn.* 2. 131.
Calamintha patavina. *Host Fl. Austr.* 2. 133.

Melissa majoranæfolia. Mill! *Dict. n.* 7.

Thymus suaveolens. Sm.! *Prod. Fl. Gr.* 1. 420.

Thymus acinoides. Ten. *Prod. Fl. Nap.* 35. *Syll.* 296.?

Hab. in Europa australi: in Hispania *Pavon!* Gallia mediterranea!
Italia ab agro Veronensi *Reichenbach*, et Pedemontio, ad regnum
Neapolitanum *Tenore*, in monte Parnasso *Sibthorp!* (*v. v. et h. s. sp.*)

Major et durior quam *M. Acinos*, floribus duplo-majoribus; glabrior et erectior
quam *M. alpina*, cui affinium at distincta.

10. *M. MICROPHYLLA*, suffruticosa, pusilla, diffusa, subglabra, foliis petiolatis subrotundis integerrimis, floralibus conformibus, verticillastris 4-6-floris, calycibus subsessilibus, labiis tubo multo brevioribus, corollis calyce fere duplo longioribus.

Thymus corsicus. Pers. *Syn.* 2. 131.

Hab. in Corsicæ montibus! (*h. s. sp. comm. a cl. Requien.*)

Planta parva, ramosissima, ramis brevibus junioribus pilosis. Folia vix 2-linearia, rigida, venosa, sæpius glaberrima, interdum pilosa. Verticillastri in ramis floriferis 1-2. Flores *M. patavini*, at calyces longiores tenuiores.

11. *M. ALPINA*, perennis, diffusa, pubescens vel villosa, foliis petiolatis subrotundis ovatisve vix serratis, floralibus calyces subæquantibus, verticillastris 4-6-floris, calycibus subsessilibus, labiis tubo brevioribus, corollis calyce plus duplo longioribus.

Thymus alpinus. Linn. *Spec.* 826. *Bot. Mag.* 47. t. 2152.

Acinos alpinus. Mænench. *Meth.* 407.

Acinos diffusus. Bonningh. *Fl. Monast. ex Bot. Zeit.* 1825. 1. 333?

Thymus montanus. Crantz. *Stirp. Austr.* 278.

Thymus villosissimus. Tausch. in *Syll. Pl. Soc. Ratisb.* 2. 248?

Hab. in Europæ australioris montanis umbrosisque: in Gallia!
Hispania! Germania! Italia! (*v. v. et h. s. sp.*)

Caulis basi ramosissimus sublignosus. Rami floriferi adscendentes, sæpius villosi, semipedales. Folia minora et plerumque latiora quam in *M. Acinos* et *patavina*, superiora interdum angustiora. Calyces purpurascens, magnitudine *M. patavini*. Corolla major, purpurascens, fauce valde dilatata, labium superius et inferioris lobus medius brevissime emarginata. Antherarum loculi divergentes, demum divaricati. Styli lobus inferior complanatus.

12. *M. GRAVEOLENS*, herbacea, annua, erecta, villosa, foliis petiolatis ovatis subserratis, floralibus conformibus flores superantibus, verticillastris 6-floris, calycibus subsessilibus, labiis incurvis tubum æquantibus, corollis calyce vix dimidio longioribus.

Thymus graveolens. Bieb. *Fl. Taur.-Cauc.* 2. 60. *Pl. Rar. Ross. Ic.* 1. t. 38.

Acinos graveolens. Link *Enum. Hort. Berol.* 2. 117.

Thymus canus. Stev. apud Hoffm. in *Comm. Soc. Phys. Med. Mosq.* 1. 46. *ex Bieb.*

Thymus exiguus. Sibth. et Sm.! *Fl. Gr.* 6. 61. t. 575. (*Corollæ in iconc minores quam in exemplaribus.*)

Acinos canus. Reichenb. *Fl. Germ. exc.* 327.

Hab. in Europa austro-orientali et Asia Caucasica: Neapoli
Tenore, in ins. Cypri montibus *Sibthorp!* in Transsylvania *Reichenbach*, Tauria et Iberia media *Bieberstein*, in montibus Talüsche *C. A. Meyer.* (*h. s. c. et v. s. sp.*)

Herba vix bipollicaris, simplex vel ramosa. Folia *M. patavinæ*, at villosiora. Flores majores quam in *M. Acinos*, minores quam in *M. patavina*, et calycis forma distinctissimi.

Species Sectionis III. non satis notæ.

13. *M. PURPURASCENS.*

Acinos purpurascens. Pers. Syn. 2. 13.

Thymus purpurascens. Poir. Dict. 7. 654.

Hab. in Hispania *Clemente.* (*Persoon.*)

“*A. caule ramoso divaricato tomentoso, foliis ovatis subserratis, summis congestis (coloratis), verticillis 1-2-floris subapproximatis. Folia præsertim ad venas in meo specimine rubro-violacea. Corolla majuscula, rubra. Medius inter A. vulgarem et alpinum videtur.*”—Pers. l. c.

Verosimiliter *M. alpinæ* varietas.

14. *M. ROTUNDIFOLIA.*

Acinos rotundifolius. Pers. Syn. 2. 131.

Thymus rotundifolius. Poir. Dict. 7. 654.

Thymus melissoides. Bernh. ex Reichb. Fl. Germ. exc. 327.

Hab. in Hispania *Persoon*, in Hungaria *Reichenbach.*

“*A. foliis orbiculatis mucronatis venis subtus prominentibus, caule procumbente, apice calycibusque villosis.*”—Pers. l. c.

Ex exemplaribus sub hoc nomine in hortis botanicis cultis, non differre videtur a *M. patavina.*

SECTIO IV. CLINOPODIUM.

Clinopodium. Linn. et Auct.

Verticillastri multiflori vel laxè pauciflori, æquales, pedunculo communi subnullo, pedicellis filiformibus nec complanatis. Bracteæ subulatae, nunc minutæ, nunc calycem æquantes. Calyx basi infra gibbus vel subæqualis, fauce intus nuda vel parum villosa.

15. *M. DEBILIS*, herbacea, pusilla, debilis, glabra, foliis petiolatis ovatis levissime subserratis, floralibus minoribus, verticillastris paucifloris, pedicellis elongatis filiformibus, bracteis minutis, calycis fauce intus nuda.

Thymus debilis. Ledeb. ! Ic. Pl. Fl. Ross. Alt. t. 438. Bunge ! in Ledeb. Pl. Alt. 2. 391.

Hab. in Sibiriae jugo Altaico : in umbrosis prope fortalitium Alexandrowsk et in deserto Soongoro-Kirghisico circa montem Kent C. A. Meyer ! (*h. s. sp. comm. a cl. Bunge.*)

Herba vix 3-4-pollicaris, in omni parte glaberrima. Caulis adscendens, subsimplex. Folia semipollicaria, basi in petiolum semipollicarem longe angustata, tenuia, floralia inferiora conformia, supra parva. Verticillastri distantes 4-6- rarius sub 10-flori. Cymarum pedunculus communis sæpius nullus, rarius in verticillastris inferioribus 1-2-linearis. Calyx declinatus, 2-3-linearis, latus, basi non gibbus. Corollam non vidi.

16. *M. UMBROSA* (Bieb. Fl. Taur.-Cauc. 2. 63. non Auct. Germ.), herbacea, diffusa, pubescens vel villosa, foliis petiolatis ovatis serrato-crenatis basi rotundatis, verticillastris æqualibus globosis multifloris, bracteis minutis vel exterioribus subulatis, calyce dimidio brevioribus.

Clinopodium repens β. *Benth. in Wall. Pl. As. Rar.* 1. 66.

Hab. in Asiæ mediæ montibus: in Iberiæ sylvis sub arboribus circa Ananur et Duschet *Bieberstein*, in montibus Talüsche perfrequens *C. A. Meyer!* in jugo Himalayano vulgaris *Wallich! Royle! &c.*, in montibus peninsulæ Indicæ *Wight!* (*h. s. sp. e Mus. Angl. Ind., et comm. a cl. Royle, Wight, Meyer, &c.*)

Caules elongati, numerosi, procumbentes, basi repentes, parum ramosi, 1-3-pedales. Rami tetragoni, versus apices pilis reflexis villosi, basi glabrati, vel angulis villosi. Folia *M. Clinopodio* minora, tenuiora, et minus rugosa, vix pollicaria, supra sparse subtus ad venas hirsuta, floralia sessiliora, inferiora caulinis conformia, suprema angustiora. Verticillastri 20-40-flori, inferiores remoti, supremi interdum in spica laxa vel racemo denso approximati. Pedunculus communis utrinque subnullus vel pedicellis brevior. Bracteæ paucae, subulatæ, ciliatæ, nunc brevissimæ, subnullæ, nunc pedicellos æquantes vel parum superantes. Pedicelli tenues, hispidi, calyce breviores. Calyx declinatus, 2-2½ lin. longus, basi infra gibbus, striatus, nervis ciliatis, apice subcoloratus. Labia patentia, superius latum, dentibus brevibus acutis, inferioris lacinia subulatæ, vix superius æquantes. Corolla calyce vix dimidio longior, purpurascens. Stamina superiora sæpe sterilia.

17. *M. REPENS*, herbacea, diffusa, basi radicans, pubescens, vel villosa, foliis petiolatis ovatis obtusis serrato-crenatis basi rotundatis, verticillastris æqualibus globosis multifloris, bracteis subulatis numerosis calycem æquantibus.

Clinopodium repens α. *Wall. Benth. in Wall. Pl. As. Rar.* 1. 66.

Thymus repens. *Don! Prod. Fl. Nep.* 113.

Hab. in Asia media: in Indiæ orientalis montibus Napalensibus *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitus *M. umbrosæ*. Rami longiores. Verticillastri densiores hirsutiores. Bracteæ numerosæ, longe ciliatæ, ut in *M. Clinopodio* calyces æquantes.

18. *M. ORIGANIFOLIA*.

Clinopodium origanifolium. *Labill. Ic. Pl. Syr. Rar.* 4. 14. t. 9.

Hab. in monte Libano *Labillardiere*.

“C. capitulis verticillatis, bracteis lineari-lanceolatis hispidis, foliis ovatis integerrimis hispidis.

“Planta suffruticosa, sesquipedalis, caulibus adscendentibus, ramosis, teretiusculis hispidis. Folia subpetiolata, ovata, integerrima, utrinque pilis adpressis hirsuta unguicularia. Capituli florum verticillati subsessiles, inferiores quidam ramulum æmulantes, longius pedunculati. Bracteæ capitulis subjectæ, lineari-lanceolatæ, hispidæ, vix calyce longiores. Calyx elongatus, striatus, hispidus, 5-dentatus, subbilabiatus, dentibus 2 inferioribus paullo brevioribus. Corolla pilosiuscula, labio superiore brevi subcompresso obtuso integerrimo, inferiore trilobo, lobo medio concavo supra acutiusculo, tubus longitudine calycis. Alia ut in congeneribus (*Clinopodiis*).”—*Labill. l. c.*

An non potius *Micromeria* species?

19. *M. CLINOPodium*, herbacea, erecta, villosa, foliis petiolatis ovatis obtusis subcrenatis basi rotundatis, verticillastris æqualibus globosis multifloris, bracteis subulatis numerosis calycem æquantibus.

Clinopodium vulgare. Linn.! Spec. 821. Sm. Eng. Bot. 20. t. 1401.

Clinopodium ægyptiacum. Lam. Dict. 2. 50.

Clinopodium atropurpureum et variegatum. Hortul.

Clinopodium plumosum. Sieb. in Bot. Zeit. 1822. t. 242. ?*

Thymus sylvaticus. Bernh. ex Steud. Nom. Bot. 208.

Hab. in Europæ omnis et Asiæ mediæ sylvis apertis ad sepes et vias: a Scotia! et Suecia *Wahlenberg*, ad Hispaniam! Siciliam *Gussone*, Græciam et Cretam *Sibthorp*, in regione Caucasico-Caspico *C. A. Meyer*, etiam in America septentrionali verosimiliter ex Europa allata (*v. v. et h. s. sp.*)

Caules 1-2-pedales, parum ramosi. Folia 1-2-pollicaria, sæpius utrinque villosa, rarius supra subglabra, subtus pallida vel subcanescentia, margine nunc integerrima, nunc obscure vel irregulariter serrato-crenata. Floralia minora sessiliora. Verticillastri pauci, distantes, pollicem diametro et interdum majora. Calyces 3-4 lin. longi uti bracteæ pilosissimæ. Corolla *M. Calaminthæ* calyce duplo longior.

SECTIO V. MELIPHYLLUM.

Melissa. Sm. DC. et Auct.

Verticillastri pauciflori, laxiusculi, secundi. Bracteæ paucae, sæpius ovatae. Calyx basi vix gibbus, patens, labio superiore glabriusculo, fauce intus nuda, vel pilis raris villosa. Corolla alba vel flavescens, tubo recurvo-adscendente.

20. *M. OFFICINALIS* (Linn.! Spec. 827), herbacea, erecta, ramosa, foliis lato-ovatis crenatis basi truncatis cordatisve, floralibus subconformibus, verticillastris axillaribus laxis secundis, bracteis paucis ovatis, corollis calyce dimidio longioribus.

M. graveolens. Host! Fl. Austr. 2. 128.

M. foliosa. Opiz ex Reichb. Fl. Germ. exc. 329.

β villosa.

M. romana. Mill.! Dict. n. 2.

M. hirsuta. Balb.

M. cordifolia. Pers. Syn. 2. 132.

M. taurica. Hortul.

M. altissima. Sibth. et Sm.! Fl. Gr. 6. 63. t. 579.

Hab. in Europæ meridionalis et Asiæ mediæ montosis sylvaticis: in Lusitania *Brotero*, Hispania *Pavon*! Gallia meridionali? Italia *Tenore*, Sicilia *Gussone*, in Græcia et insulis Archipelagi et Creta *Sibthorp*! *Zuccarini*! &c., circa Aleppo *Russell*! in Tauria et Iberia *Bieberstein*, in montibus *Beschtau* et provincia *Lenkoran* *C. A. Meyer* (*h. s. sp.*)

Herba altitudine, villositate, magnitudine foliorum, forma ejus baseos, et corollarum longitudine, valde variabilis. Caules erecti plus minusve villosi, nunc vix pedales, sæpius 2-3-pedales. Folia nunc semipollicaria, nunc 2-3-pollicaria, caulina et ramorum sterilium truncata vel interdum profunde cordata, floralia superiora et

* “C. capitulis cymosis, bracteis linearibus plumoso-ciliatis, foliis pilosis dentatis, caule subramosa. — Hab. prope Spalatro in Dalmatia. A vulgari differt habitu validiore, foliis longe albo-pilosis, et bracteis plumoso-ciliatis.” — *Sieb. l. c.*

ramealia minora, basi rotundata vel cuneata, omnia obtusa vel superiora acuta, utrinque plus minusve villosa-hispida, viridia, rugosa, floralia flores superantia. Verticillastri omnes distantes. Cymæ subdistinctæ, 3-6-floræ, pedunculo communi brevi, pedicellis pedunculo longioribus, calyce brevioribus. Bracteæ paucae, subfoliaceæ, calyce breviores, ovatæ, acutæ, integerrimæ. Calyx fauce hiantæ, intus pilosiuscula vel nuda; labium superius planum, truncatum, breviter tridentatum. Corolla alba vel pallide flavescens, exserta, calyce sæpius duplo longior, incurva, adscendens, labium superius emarginatum, inferioris lobus medius integer. Styli lobi subæquales, subulati.

21. *M. HIRSUTA* (Blume Bijdr. 830).

Hab. in Java: in cacumine montis ignivomi Tjerimai provinciæ Cheribon *Blume*.

“*M. capitulis verticillatis axillaribus, foliis ovato-oblongis obtuse serratis, calycibusque hirsutis.*

“*Affinis M. officinali.*”—*Blume l. c.*

22. *M. PARVIFLORA* (Benth. in Wall. Pl. As. Rar. 1. 65), herbacea, erecta, subglabra, foliis ovatis vel ovato-lanceolatis acutis subserratis basi rotundatis cuneatisve, floralibus conformibus, verticillastris axillaribus laxis secundis, bracteis paucis parvis oblongo-linearibus, corollis calyce vix longioribus.

Geniosporum axillare. *Benth. ! in Wall. Pl. As. Rar. 2. 18.*

Scutellaria japonica. *Burm. ! Fl. Ind. 130. (ex herbario suo, ubi cum Plectrantho menthoidi miscitur.)*

Hab. in India orientali: in montibus Napaliæ et Kamaon *Wallich !* et Deyra Dhoun *Royle ! (h. s. sp. e Mus. Angl. Ind.)*

Characteribus *M. officinali* affinis, sed habitu diversa. Tota planta sæpe purpurascit et glabra est, pilis paucis exceptis ad angulos caulis et nervos foliorum vel calycum. Folia vix pollicaria. Inflorescentia *M. officinalis*. Bracteæ sæpius minutæ. Calyces minus dilatati, labio superiore minore quam in *M. officinali*. Corolla vix exserta, albida?

23. *M. FLAVA* (Benth. in Wall. Pl. As. Rar. 1. 65), herbacea, erecta, subglabra, foliis ovatis vel ovato-lanceolatis acutis serrato-crenatis basi rotundatis, floralibus conformibus, verticillastris axillaribus laxis secundis, bracteis paucis oblongo-linearibus, corollis calyce subtriplo longioribus.

Hab. in India orientali: in montibus Napaliæ *Wallich ! (h. s. sp. e Mus. Angl. Ind.)*

Habitus et folia *M. parvifloræ*. Calyces apice colorati, 4-5 lin. longi, labiis patentibus, superiore subplano, dentibus lato-lanceolatis acutis, inferioris laciniae lanceolatae, acutæ, labium superius æquantes. Corolla 9-10-linearis, flava, incurvo-adscendens, fauce valde dilatata. Stamina omnia fertilia. Antherarum loculi divaricati.

SECTIO VI. MACROMELISSA.

Verticillastri laxissimi, sæpius pauciflori, cymis subumbellæformibus, pedunculis elongatis vix dichotomis. Calyx fauce patentissima, intus subnuda, labiis profundis patentissimis. Corolla elongata, purpurascens, tubo dilatato. Stamina apice subdistantia.

24. *M. GRANDIFLORA* (Linn. ! Spec. 827), herbacea, suberecta,

parce villosa, foliis petiolatis ovatis acutis grosse dentatis basi rotundatis cuneatisve utrinque viridibus, racemo laxo paucifloro, cymis pedunculatis vix dichotomis paucifloris, calycis fauce intus subnuda, corollis amplis calyce plus duplo longioribus.

Calamintha grandiflora. *Mæench. Meth.* 408.

Thymus grandiflorus. *Scop. Fl. Carn. DC. Fl. Fr.* 3. 562.

Hab. in Europæ sylvis umbrosis: in montibus Pyrenæis! Cebennarum! et Lozère! in Alpibus Pedemontanis, Helveticis! Germanicisque! in Olympo Bithynico, monte Atho, et Laconicis montibus *Sibthorp!* in Tauria circa Baidar *Bieberstein* (*v. v. et h. s. sp.*)

Caules basi ramosi, decumbentes. Rami pedales suberecti, glabri, vel pilis raris villosi. Folia sæpe 2-3-pollicaria, nunc glabra, sæpius pilis sparsis utrinque hispidula; floralia inferiora conformia, superiora multo minora angustiora. Verticillastri pauci, subsecundi. Pedunculus communis nunc 3-4-linearis nunc fere pollicaris; rami subnulli, pedicelli inæquales, longiores calycibus æqualibus; bractæ parvæ, lineares, acutæ. Calyx 4-5-linearis, tubulosus, fauce parum ampliata intus nuda vel pilis paucis ciliata, labia patentia, lobis e basi lanceolato-subulatis. Corolla 1-1½-pollicaris, purpurascens, fauce valde inflata, labium superius breve emarginatum, inferioris lobus medius latus emarginatus. Stamina laxè approximata. Antherarum loculi subparalleli.

25. *M. MACROSTEMA* (Moç. et Sess. MSS.), fruticosa, ramis divaricatis junioribus villosis, foliis petiolatis ovatis oblongisve acutis basi rotundato-cuneatis levissime serratis supra viridibus subtus pallidis utrinque glabriusculis hispidulisve, verticillastris laxis subsecundis paucifloris, pedunculis pedicellisque elongatis, calycibus glabris, labio superiore patente, fauce intus subnuda.

Hab. in Nova Hispania *Moçino et Sessé!* (*h. s. c. ex hort. Mexicano comm. a cl. G. J. Graham, et v. s. sp. in herb. Lambert.*)

Rami elongati, subteretes. Folia distantia, semipollicaria vel vix pollicaria, floralia conformia, cymis sublongiora. Cymæ plerumque 2-3-floræ. Bractæ parvæ, oblongæ. Calyx 5 lin. longus, labiis patentissimis. Corolla tenuissime pubescens, calyce subquadruplo longior tubo dilatato. Labia subæqualia, superius erectum oblongum breviter emarginatum, inferius patens, lobis rotundatis, medio emarginato? Stamina subexserta. Antheræ subdistantes.

SECTIO VII. HETEROMELYSSON.

Verticillastri irregulares, pauci-multiflori, subsecundi, in ramos foliatis sæpe abeuntes. Bractæ subfoliaceæ. Calyx elongatus, basi non gibbus, vix bilabiatus, dentibus setaceis rectis, fauce intus subnuda. Corolla elongata purpurea, tubo subrecto.

26. *M. LONGICAULIS* (Wall. MSS.), suffruticosa, ramis elongatis decumbentibus pubescentibus, foliis ovato-oblongis obtusis subdentatis basi cuneatis angustatisve subvillosis, floralibus conformibus, verticillastris paucifloris irregularibus secundis, calycibus elongatis subdeclinatis, dentibus lanceolato-subulatis, fauce intus subnuda.

Thymus piperitus. *Don! Prod. Fl. Nep.* 112.

Thymus organifolius. *Don! Prod. Fl. Nep.* 112.

Clinopodium longicaule. *Benth. in Wall. Pl. As. Rar.* 1. 66.

Hab. in India orientali: in Napaliæ montibus *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

May 1834.

3 F

Caules debiles 2-3-pedales, ex schedis Wallichianis basi lignosi. Rami juniores molliter villosi, summitatibus purpurascens. Folia vix semipollicem longa, nunc integerrima, sæpius utrinque crenis 1-2 notata. Verticillastri versus apices ramorum approximati, irregulariter 2-6-flori, foliis floralibus bracteisque foliaceis calyce brevioribus intermixti. Calyces 5-6 lin. longi, sæpe subbilabiati at labia vix patentia. Faux intus fere nuda vel rarius pilis albis subclausa. Corolla violacea, calyce vix duplo longior. Stamina superiora plerumque abortiva. Species inter *Melissam* et *Hedeoma* media : an genus proprium?

Species dubiæ.

M. RUGOSA (Lour. Fl. Cochinch. 368).

Hab. in Cochinchina *Loureiro*.

"*M. racemis confertis axillaribus et terminalibus, foliis rugosissimis subrotundis acuminatis.*

"*Caulis annuus, sesquipedalis, tetragonus, erectus, ramosissimus. Folia rugosissima, subrotunda, acuminata, serrata, opposita, petiolata. Flos albo-ruber, racemis confertis axillaribus et terminalibus. Planta tota, corollis exceptis, colore obscure viridi prædita.*"—*Lour. l. c.*

M. OBTUSIFOLIA (Pers. Syn. 2. 132).

Hab. in America meridionali *Michaux* (*Persoon.*)

"*M. foliis late ovatis obsolete serratis apice rotundatis, caule villosa, pedunculis simpliciter divisis solitariisque foliis multo brevioribus. Corolla dilute violacea.*"—*Pers. l. c.*

M. VERONICÆFOLIA (Pers. Syn. 2. 132).

Thymus veronicæfolius. Spreng. Syst. 2. 698.

Hab. in Bahama *Persoon.*

"*M. foliis late ovatis serratis petiolatis, caule ramoso diffuso, pedunculis elongatis ramosis.*

"*Caulis villosus. Folia subglabra. Calyx glaber. Corolla intus purpurascens, maculis albido-violaceis variegata. Veronicam arvensem refert.*"—*Pers. l. c.*

Clinopodia auctorum dubia.

C. ASIATICUM (Lour. Fl. Cochinch. 374).

Hab. in Cochinchina *Loureiro*.

"*C. foliis oblongis nervosis rugosis subtus tomentosis, spica verticillata terminali.*

"*Caulis suffruticosus, 2½ pedes longus, erectus, 4-gonus, 4-sulcatus, simplex, villosus. Folia ovato-oblonga, obtusa, leviter serrata, rugosa, polynervia, subtus tomentosa, opposita. Flos violaceus; spica terminalis, oblonga, composita, verticillis interruptis, involucris acutis hirsutis subjectis. Calyx bilabiatus, integerrimus, inæqualis, pilosissimus. Corolla labio superiore concavo æqualiter trifido, inferiore refracto integerrimo longiore.*"—*Lour. l. c.*

Certe ex genere et forsitan ex ordine excludendum. Si revera ad *Labiatas*, verosimiliter ad *Anisochilum* referendum.

C. HUMILE (Mill. Dict. n. 4).

Hab. in Carolina *Miller*.

"*C. humile, ramosum, foliis rugosioribus, capitulis explanatis.*"—*Mill. l. c.*

C. CAROLINIANUM (Mill. Dict. n. 5).

Hab. in Carolina *Miller*.

"*C. caule erecto non ramoso, foliis subtus villosis, verticillis paucioribus, bracteis calyce longioribus.*"—*Mill. l. c.*

Species e genere excludendæ.

- M. ALBA* Waldst. et Kit. = *Micromeria rupestris*.
M. CRETICA Lam. = *Micromeria marifolia*.
M. FRUTICOSA Linn. = *Micromeria marifolia*.
M. MARIFOLIA Pers. = *Micromeria marifolia*.
M. MAXIMA Ard. = *Perilla ocymoides*.
M. NAPALENSIS Benth. = *Hedeoma napalensis*.
M. PERENNIS Forsk. = *Salvia ægyptiaca*.
M. PULEGIOIDES Linn. = *Hedeoma pulegioides*.
M. PULEGIUM Roch. = *Micromeria Pulegium*.
M. PYRENAICA Jacq. = *Horminum pyrenaicum*.^{*}
M. SUBNUDA Waldst. et Kit. = *Micromeria Pulegium*.
M. SYLVESTRIS Lam. = *Melittis melissophyllum*.
CLINOPODIUM CAPITATUM Sw. = *Hyptis capitata*.
C. CHAMÆDRYS Vahl. = *Marsypianthus hyptoides*.
C. FRUTICOSUM Forsk. = *Phlomis moluccoides* Vahl. Verosimiliter genus novum.
C. INCANUM Linn. = *Pycnanthemum incanum*.
C. MARTINICENSE Jacq. = *Leucas martinicensis*.
C. RUGOSUM Linn. = *Hyptis radiata et globifera*.

XLVIII. GARDOQUIA.

Gardoquia. Ruiz et Pav. Prod. Fl. Per. et Chil.

Rizoa. Cav. Ic. Rar. 6. 56.

Calyx tubulosus, 13-nervius, subincurvus, ore æquali vel obliquo, dentibus brevibus rectis subæqualibus vel subbilabiatis. Corollæ tubus longe exsertus, rectus vel incurvus, intus nudus; limbus bilabiatus, labium superius erectum subplanum emarginatum, inferius subpatens, lobis planis medio latiore. Stamina 4, subdidynama, inferioribus longioribus, laxè adscendentia, apice subdistantia, superiora subinde sterilia. Filamenta edentula. Antheræ biloculares, loculis distinctis parallelis vel subdivergentibus. Styli lobi subæquales. Achenia sicca, lævia.— Suffrutices fruticesve ramosissimi foliosi, sæpe procumbentes. Flores pulchri, sæpius coccinei. Genus a *Micromeria* non nisi longitudine corollarum, limbique lobis suberectis, distinctum.

The species are all South American.

CONSPECTUS SPECIERUM.

Corolla calycem paullo excedens vel vix duplo longior,
tubo incluso vel breviter exserto.

Folia parva, subtus albo-tomentosa . . . 9. *G. BREVIFLORA*.

Folia semipollicaria rugosa, coriacea, villosa, viridia. 2. *G. RUGOSA*.

* This plant has many of the characters of *Melissa*; and from a cursory observation, I had been induced to consider De Candolle right in referring it, with the generality of modern authors, to that genus, notwithstanding its great affinity in habit to *Salvia lyrata*. A closer examination, however, proves it to have the connate anthers of *Monardæ*; and the presence of an annulus in the tube of the corolla also separates it from *Melissineæ*, and connects it with the section *Heterosphace* of *Salvia*, from which it only differs by the fertility of the upper stamina, and the want of the lengthened connectivum characteristic of *Salvia*. The genus *Horminum* will, therefore, be given in the supplement, referring it to *Monardæ* between *Rosmarinus* and *Monarda*.

Corolla tubulosa, calyce triplo quadruplove longior.

Folia plus minusve dentata.

Folia utrinque viridia.

Folia lanceolato-oblonga, vix serrata . 16. *G. GLABRATA.*

Folia ovata crenata.

• Verticillastri subsexflori condensati. Calyces pilosi . 3. *G. ELLIPTICA.*

Cymæ pedunculatæ, laxæ plurifloræ. Calyces glabri . 1. *G. MULTIFLORA.*

Folia subtus vel utrinque cano- vel albo-tomentosa.

Verticillastri multiflori . 4. *G. THYMOIDES.*

Verticillastri 2-6-flori.

Folia 8-9 lin. longa, 6-8 lin. lata.

Folia serrata supra pubescentia . 5. *G. ELEGANS.*

Folia crenata margine revoluta, supra scabriuscula . 6. *G. PULCHELLA.*

Folia vix semipollicaria, 4-5 lin. lata.

Folia basi truncata . 7. *G. TOMENTOSA.*

Folia basi cuneata . 8. *G. GRANDIFLORA.*

Folia integerrima.

Folia subtus vel utrinque albo-tomentosa, argentea vel sericea.

Folia vix lineam longa, supra bullata, viridia 22. *G. REVOLUTA.*

Folia 2-6 lin. longa, plana, vel margine revoluta.

Folia ovata vel oblonga, plana.

Calycis faux intus nuda . 10. *G. INCANA.*

Calycis faux intus villosa . 14. *G. DISCOLOR.*

Folia linearia, margine revoluta . 12. *G. SERICEA.*

Folia oblongo-lanceolata, margine revoluta . 13. *G. ARGENTEA.*

Folia utrinque viridia.

Folia plerumque 3-4 lin. longa, obovata, oblonga vel lanceolata.

Calycis faux intus nuda . 15. *G. GILLIESII.*

Calycis faux intus villis clausa.

Folia obovata, vel obovato-oblonga.

Folia lato-obovata, ultra semipollicaria . 11. *G. HOOKERI.*

Folia obovato-oblonga, 3-4 lin. longa 16. *G. OBOVATA.*

Folia oblongo-lanceolata, vel linearia.

Folia acuta, subserrata . 17. *G. GLABRATA.*

Folia obtusa, constanter integerrima . 18. *G. TAXIFOLIA.*

Folia ovata, 1-2 lin. longa.

Calycis faux intus subvillosa. Folia 2 lin. longa . 19. *G. STRIATA.*

Calycis faux intus nuda. Folia vix lineam longa.

Folia ciliata. Dentes calycini acuti . 20. *G. MICROPHYLLA.*

Folia nuda. Dentes calycini obtusi. 21. *G. JAMESONI.*

1. *G. MULTIFLORA* (Ruiz et Pav. ! Syst. Veg. Fl. Per. et Chil. 149), fruticosa, subglabra, foliis petiolatis ovatis obtusiusculis subcrenatis basi rotundatis viridibus subtus pallidis, floralibus conformibus, verticillastris laxis subsecundis, cymis pedunculatis vix dichotomis, calycis glabriusculi dentibus acutis, fauce intus nuda, corollis calyce triplo longioribus.

G. multiflora. Ruiz et Pav. Fl. Per. et Chil. ined. 4. t. 495. f. a.
Rizoa ovatifolia. Cav. Ic. Rar. 6. 56. t. 578. (male.)

Hab. in Chili arvis et campis provinciæ Conceptionis *Cuming ! Bridges ! Ruiz et Pavon !* (h. s. sp.)

Caules basi duri at vix lignosi videntur. Rami pedales, uti folia et calyces glaberrimi, vel tomento tenuissimo pubescentes. Folia pollicaria, obscure dentata. Cymæ folio florali breviores. Pedunculi et pedicelli filiformes. Calyx subincurvus, apice coloratus, striatus, per anthesin evidenter bilabiatus, defloratum non vidi. Corolla ultra pollicaris, pulchra, coccinea vel purpurea ? fauce vix dilatata. Stamina subexserta.

2. *G. RUGOSA*, fruticosa, villosa, foliis petiolatis ovato-rhomboides serrato-dentatis basi rotundatis coriaceis rugosis utrinque villosis subtus vix canescentibus, verticillastris laxis multifloris, calycis villosi dentibus subulatis ciliatis, fauce intus subnuda, corollis calyce vix duplo longioribus.

Hab. in Peruvia *Ruiz et Pavon !* (v. s. sp. in herb. *Lambert.*)

Frutex ramosissimus, ramis duris tetragonis junioribus rufo-villosis. Folia 1-1½-pollicaria, late rhomboidea, reticulato-venosa, floralia minora at cymas superantia. Cymæ breviter pedunculatæ. Bracteæ oblongæ, villosæ, calyce breviores. Pedicelli breves. Calyces 3 lin. longi, tenues, virides, villosissimi, dentibus subbilabiatis. Corolla villosa, labio superiore erecto, brevissime emarginato ; inferiore subpatente, lobis oblongis inter se subæqualibus obtusis integerrimis. Stamina didynama, antheris sub labio superiore per paria approximatis.—Species æquo jure ad *Melissam*, *Micromeriam*, vel *Gardoquiam* referenda.

3. *G. ELLIPTICA* (*Ruiz et Pav. ! Syst. Veg. Fl. Per. et Chil. 149*), fruticosa, erecta, ramis glabris, foliis petiolatis ovatis acutiusculis leviter serrato-crenatis basi rotundatis cuneatisve utrinque viridibus glabris subciliatisve, floralibus minoribus, verticillastris sub-6-floris, calycibus viridibus pilosis, dentibus acutis, fauce intus nuda, corollis calyce subquadruplo longioribus.

G. elliptica. Ruiz et Pav. Fl. Per. et Chil. ined. 4. t. 495. f. b.

Stachys speciosa. Hook. ! Bot. Misc. 2. 235.

Hab. in Peruviæ montibus versus Cheuchin et Sayan vicos *Ruiz et Pavon !* inter Pacron et Obrajillo Vallis Cantæ *Cruikshanks !* (v. s. sp. in herb. *Lambert, Hooker, et Lindley.*)

Rami tetragoni. Folia pollicaria, subrugosa, floralia conformia. Verticillastri densiusculi, secundi, pedunculis pedicellisque brevibus. Bracteæ exteriores foliaceæ oblongo-ovatæ. Calyces striati, labio superiore breviter dentato, vix patente. Corolla fere sesquipollicaris, pubescens, coccinea, lobis abbreviatis. Stamina exserta, subdistantia.

4. *G. THYMOIDES* (*Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 314*).

Hab. in America meridionali : in Andibus Quitensibus ? *Humboldt et Bonpland.*

“ *G. foliis ovatis acutis subcordatis margine revolutis subserratis supra glabriusculis subtus cano-pubescentibus, floribus verticillatis.*

“ Frutex ramosissimus, ramis tetragonis pubescentibus. Folia brevissime petiolata, ovata, subcordata, acuta, subserrata, margine revoluta, venosa, supra glabriuscula, subtus cano-pubescentia, 3 lin. longa, 2 lin. lata. Petioli pubescentes. Flores verticillati, pedunculati, semipollicares, verticillis multifloris, distantibus, internodiis 5-9 lin. longis. Calyx tubulosus, 10-sulcatus, 5-dentatus, pubescens, dentibus inæqualibus acuminato-subulatis. Corolla calyce triplo longior, flava (?), pubescens, tubo interne pubescente, fauce longissima inferne barbata, limbo bilabiato purpureo-maculato, labio superiore emarginato, inferiore trifido, laciniis obtusis. Stamina 4, didynama, distantia, subinclusa. Filamenta glabra. Stylus exsertus.”—*Kunth. l. c.*

5. *G. ELEGANS* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 315).

Hab. in America meridionali: inter Mulalo et Pansache in declivitate montis ignivomi Cotopaxi regno Quitensi *Humboldt et Bonpland*.

"*G. foliis subrotundo-rhomboideis obtusis serratis supra pubescentibus subtus albo-tomentosis, pedunculis axillaribus subtrifloris.*

"*Frutex aromaticus, 3-4-pedalis, ramis tetragonis pubescentibus, junioribus albo-tomentosis. Folia petiolata subrotundo-rhomboidea, obtuse serrata, basim versus integerrima, coriacea, reticulato-venosa, supra pubescentia, subtus albo-tomentosa, 9 lin. longa, 8 lin. lata. Petioli 1½ lin. longi, tomentosi. Pedunculi axillares, 2-3-flori. Flores breviter pedicellati. Calyx tubulosus, 10-sulcatus, 5-dentatus, tomentosus, dentibus acuminatis, 3 superioribus minoribus. Corolla rubra, externe pubescens, fauce flava incarnato-maculata. Stamina G. tomentosæ.*"—*Kunth. l. c.*

6. *G. PULCHELLA* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 315).

Hab. in America meridionali: in locis calidis inter Caseas et Contumasy Peruviae *Humboldt et Bonpland*.

"*G. foliis ovatis aut subrotundo-ovatis obtusis basi cuneatis margine subrevolutis crenatis supra scabriusculis subtus albido-tomentosis, pedunculis axillaribus subtrifloris.*

"*Frutex 3-4-pedalis, ramosissimus, ramis tetragonis pubescenti-tomentosis erectis. Folia petiolata, ovata aut subrotundo-ovata, obtusa, basi cuneata, margine crenata et subrevoluta, coriacea, venosa, supra scabriuscula viridia, subtus albido-tomentosa, 8-9 lin. longa, 6-7 lin. lata. Petioli 1½ lin. longi, tomentosi. Pedunculi axillares, subtriflori. Flores longe pedicellati, pedicellis 2-3 lin. longis, teretibus tomentosis. Calyx subsemipollicaris, tubulosus, 10-sulcatus, 5-dentatus, tomentoso-pubescentis, dentibus acuminato-subulatis, 2 inferioribus brevioribus.*"—*Kunth. l. c.*

7. *G. TOMENTOSA* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 314).

Hab. in America meridionali: in arenosis altæ planitiei Quitensis juxta Llactacunga, Hambato, et Riobamba Nuevo *Humboldt et Bonpland*.

"*G. foliis subrotundo-ovatis acutiusculis basi subtruncatis, margine revolutis et leviter serratis, supra pubescentibus subtus albido-tomentosis, pedunculis axillaribus subtrifloris.*

"*Frutex aromaticus, ramosissimus, 3-pedalis, ramis subteretibus, ramulis tetragonis pubescentibus. Folia petiolata, subrotundo-ovata, acutiuscula, basi subtruncata, margine leviter serrata et revoluta, coriacea, venosa, supra pubescentia, subtus albido-tomentosa, vix semipollicaria, 5 lin. lata. Petioli lineam longi, tomentosi. Pedunculi axillares, 1-3-flori. Flores pedicellati 8-9 lin. longi. Pedicelli lineam longi, tomentosi. Calyx tubulosus, 10-sulcatus, 5-dentatus, albido-tomentosus, dentibus acuminatus, 3 superioribus minoribus. Corolla calyce triplo longior, incarnata, externe pubescens, tubo brevi, fauce longissima inferne barbato, limbo bilabiato, labio superiore emarginato, inferiore trifido, laciniis obtusis. Stamina 4, didynama, distantia, inclusa. Antheræ subreniformes. Stylus exsertus, glaber. Achenia triangularia, obtusa, lævia, fusca. *G. grandifloræ* valde affinis."—*Kunth. l. c.**

8. *G. GRANDIFLORA* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 314).

Hab. in America meridionali: in convalli temperata fluminis Chambo inter montem ignivomum Tunguragua et pagum Penipe *Humboldt et Bonpland*.

“ *G. foliis subrotundo-ovatis obtusis basi acutis apicem versus dentatis supra tenuissime pubescentibus subtus incano-tomentosis, floribus axillaribus solitariis.*

“ Frutex 3-pedalis, ramosissimus, ramis subteretibus glabriusculis, ramulis tetragonis pubescentibus. Folia petiolata, subrotundo-ovata, obtusa, basi acuta, apicem versus dentata, reticulato-venosa, supra tenuissime pubescentia, subtus incano-tomentosa, semipollicaria, 4 lin. lata. Petioli 1-1½ lin. longi, incano-tomentosi. Flores axillares, solitarii, breviter pedunculati, 9-10 lin. longi. Calyx cylindraceus, 10-sulcatus, 5-dentatus, incano-tomentosus, dentibus acuminatis subæqualibus. Corolla calyce quadruplo longior, flava, externe pubescens, fauce interne barbata. Stamina 4, didynama, distantia, subexserta. Filamenta glabra. Antheræ incumbentes arcuatæ. Stylus glaber, exsertus. Achenia trigona, obtusa, fusca, lævia. *G. incanæ* simillima videtur.”—*Kunth. l. c.*

Ex hac descriptione non nisi foliis apice serratis a *G. incana* differt.

9. *G. BREVIFLORA*, fruticosa, incana, foliis brevissime petiolatis subrotundo-ovatis obtusis margine vix revolutis supra pubescentibus subtus cano-tomentosis, floralibus conformibus calyces æquantibus, verticillastris 2-6-floris secundis, calycibus subcoloratis, dentibus lanceolatis acutis, fauce intus nuda, corollis calycem breviter superantibus.

Hab. in Peruvia *Ruiz et Pavon!* (*v. s. sp. in herb. Lambert.*)

Habitus *G. incanæ*. Folia breviora, latiora, supra viridiora, obtusa, vel brevissime mucronulata. Calycis dentes angustiores, acutiores, et ab omnibus affinibus corollis vix calycem excedentibus distincta, et vix a *Micromeriis* separanda.

10. *G. INCANA* (*Ruiz. et Pav.!* *Syst. Veg. Fl. Per. et Chil.* 150), fruticosa, incana, foliis brevissime petiolatis ovatis obtusis integerrimis planis supra pallidis subtus cano-tomentosis, floralibus conformibus calyces æquantibus, verticillastris 2-6-floris, calycibus incanis ore obliquo, dentibus brevibus acutis, fauce intus nuda.

G. incana. Ruiz. et Pav. Fl. Per. et Chil. ined. 4. t. 493. f. 4.

Hab. in Peruvia *Mathews!* in præruptis ad Cheuchin vicum *Ruiz et Pavon!* (*v. s. sp. in herb. Lambert.*)

Folia *Helianthemis cani* semipollicaria, in speciminibus suppetentibus constanter integerrima, floralia conformia calyces superantia. Bractæ parvæ, lineares obtusæ. Calyces subsessiles incurvi, interdum subbilabiati. Corolla ultra pollicaris, pubescens, flava? Genitalia subexserta.

11. *G. HOOKERI*, fruticosa? glaberrima, foliis obovatis subintegerrimis basi in petiolum brevem angustatis utrinque viridibus, pedunculis 2-3-floris, calycis glabri subbilabiati labio superiore breviter tridentato erecto, fauce intus villis clausa.

Cunila coccinea. Nutt. ex Hook.! *Exot. Fl.* 3. t. 163.

Melissa coccinea. Spreng. Syst. 2. 224.

Hab. in Florida *Nuttall.* (*v. s. c. in herb. Hooker.*)

Rami virgati, tenues, glabri. Folia semipollicaria, 1-3-nervia, glanduloso-punctata, remotiuscula. Pedunculi nunc breves uniflori, nunc in ramulis brevibus foliaceis subtrifloris abeuntes. Pedicelli breves. Calycis labii superioris dentes brevissimi; labium inferius bifidum, lobis ovatis. Corolla coccinea, glanduloso-pubescens, labiis profunde fassis, breviter lobatis. Stamina subexserta, distantia. Antherarum loculi paralleli. Stylus exsertus. Calyce a cæteris speciebus parum diversa, sed inflorescentia, corolla, et stamina, omnino *Gardoquiæ*. Habitus etiam potius hujus generis quam *Melissæ*; a *Cunila* longe diversa.

12. *G. SERICEA* (Presl. MSS.), suffruticosa, procumbens, sericeo-tomentosa, foliis sessilibus linearibus integerrimis margine revolutis utrinque sericeo-lanatis, floralibus bracteisque conformibus minoribus, floribus axillaribus solitariis, calycibus sericeis, dentibus brevibus subæqualibus, fauce intus nuda.

Hab. in Peruvia: in vallibus Cordillerarum *Hænke!* (*h. s. sp. comm. a cl. Presl.*)

Suffrutex, ramis foliis calycibusque tomento albo sericeo indutis. Ramuli floriferi breves, adscendentes, uti folia in specimine suppetente ternatim verticillati. Folia 3-5 lin. longa, floralia conformia. Bracteæ conformes vel breviores. Calyces subsessiles, folio æquales, vix incurvi. Dentes breves, recti. Corolla 10-11 lin. longa, coccinea, pubescens. Stamina inferiora exserta, laxè adscendentia; superiora inclusa? vel abortiva?

13. *G. ARGENTEA* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 313).

Hab. in America meridionali: in alta planitie Andium Peruvianorum juxta urbem Micuipampa, in radicibus montis metalliferi Gualgayoc *Humboldt et Bonpland.*

“*G. argenteo-sericea*, foliis oblongo-lanceolatis obtusis margine revolutis integerrimis, floribus axillaribus solitariis.

“Frutex ramosissimus, ramis densissime confertis, tetragonis, argenteo-sericeis. Folia subsessilia, oblongo-lanceolata, obtusa, margine integerrima et revoluta, nervo medio subtus valde prominente, utrinque argenteo-sericea, 2-3 lin. longa. Flores axillares, solitarii, breviter pedunculati, semipollicares. Calyx campanulato-tubulosus, 10-sulcatus, 3-dentatus, bilabiatus, extus albo-sericeus, dentibus acutis subæqualibus, fauce nudo. Corolla calyce triplo longior, coccinea, externe pubescens, tubuloso-infundibuliformis, tubo breviter interne glabro, fauce longissima, linea longitudinali pilosa inferne barbata, limbo bilabiato, labio superiore subrotundo emarginato, inferiore trilobo, lobis rotundatis. Stamina 4, didynama, distantia, inclusa, unicum fertile, reliqua sterilia. Antheræ reniformes, unica maxima, tribus minutissimis. Stylus longe exsertus, glaber. An vere hujus generis ob stamina 3 abortientia.”—*Kunth. l. c.*

14. *G. DISCOLOR* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 312).

Hab. in America meridionali in declivitate montis Silla de Caracas *Humboldt et Bonpland.*

“*G. foliis oblongis acutis basi cuneatis integerrimis supra puberulis, subtus sericeo-pubescentibus et incanis.*

“Frutex ramosissimus, ramis oppositis tetragonis, ramulis canescenti-pubescentibus, cortice solubili. Folia breviter petiolata, oblonga, acuta, basi cuneata, integerrima, venosa, venis subparallelis, nervo subtus prominulo, membranacea, supra viridia et tenuissime puberula, subtus sericeo-pubescentia et incana, 4-8 lin. longa, 1½-4 lin. lata. Petioli 1-1½ lin. longi, cano-pubescentes. Flores ad apicem ramulorum axillares, solitarii, breviter pedunculati, 6-7 lin. longi. Pedunculi capillacei, tenuissime puberuli, 1½ lin. longi, basi bracteati. Bracteæ folio simillimæ, sed minores, calycem haud æquantes. Calyx villosopilosus, tubulosus, 10-nervius, fauce pilis albis clausa, limbo bilabiato, labio superiore tri- inferiore bifido, laciniis lanceolatis acutis, 2 inferioribus paullo brevioribus, apice acuminato-subulatis. Corolla tubulosa, calyce 2-4-plo longior, superne ampliata, externe pubescens, purpurea, limbo quinquefido subbilabiato, laciniis rotundatis, fauce nuda. Stamina 4, didynama, subdistantia, inclusa. Filamenta glabra. Antheræ reniformes. Ob habitum et floris structuram a sequentibus (cæteris Kunthianis) parum recedit.”—*Kunth. l. c.*

15. *G. GILLIESII* (Graham in Edinb. Phil. Journ. 1831. Sept. 377),

suffruticosa, ramis divaricatis pubescentibus, foliis oblongo-linearibus cuneatisve obtusis integerrimis basi angustatis utrinque viridibus planis, floralibus conformibus bracteisque calyce subbrevioribus, verticillastris paucis multifloris laxiusculis irregularibus, calycibus elongatis erectis, dentibus lanceolato-subulatis subæqualibus, fauce intus nuda.

Gardoquia chilensis. *Benth. in Hook. et Arn. Beech. Voy.* 58.

Hab. in Chili prope Valparaiso *Macrae! Cuming! Bridges! &c.* (*h. s. sp.*)

Caules basi lignosi, divaricati vel procumbentes. Rami primarii in racemum longum terminalem abeuntes, verticillastris magnis densis multifloris distinctis. Rami laterales dense foliosi, verticillastris numerosis paucifloris irregularibus subsecundis. Folia 3-6-linearia, uninervia, floralia uti bracteæ exteriores conformia, at calyce breviora. Calyces 5-6 lin. longi, 13-striati, recti vel vix incurvi, dentibus nunc distincte bilabiatis, sæpius omnibus rectis, inferioribus profundius fissis. Corolla pubescens, coccinea. Styli lobi subæquales.

16. *G. OBOVATA* (Ruiz et Pav.! *Syst. Veg. Fl. Per. et Chil.* 150), fruticosa, ramis canescentibus, foliis obovato-oblongis basi angustatis margine revolutis integerrimis supra læviusculis subtus pallidis pauciveniis utrinque glabris, verticillastris subbifloris secundis, calycibus glabriusculis, dentibus brevibus obtusis, fauce intus villosa.

G. obovata. *Ruiz. et Pav. Fl. Per. et Chil. ined.* 4. t. 494. f. a.

Hab. in Peruvixæ præruptis ad Cheuchin vicum *Ruiz et Pavon!* (*v. s. sp. in herb. Lambert.*)

Frutex 3-pedalis, ramis divaricatis. Folia 3-4 lin. longa, basi longe in petiolum brevissimum angustata, venis paucis pinnatis supra inconspicuis, floralia conformia. Calyces subsessiles vel breviter pedicellati, 4 lin. longi, striati, vix sub lente tomentosuli, ore parum obliquo, dentibus superioribus vix longioribus. Corolla calyce subtriplo longior, extus villosissima, staminibus longe exsertis.

17. *G. GLABRATA* (Humb. et Kunth. *Nov. Gen. et Sp. Amer.* 2. 313).

Hab. in America meridionali prope Quito? *Humboldt et Bonpland.*

“*G. ramis pubescentibus, foliis lanceolato-oblongis utrinque acutis margine revolutis leviter serratis glabris, subtus glanduloso-punctulatis, floribus axillaribus solitariis.*

“Frutex ramosissimus, ramis subtetragonis densissime confertis pubescentibus foliosis. Folia breviter petiolata, lanceolato-oblonga, utrinque acuta, apicem versus leviter serrata, margine revoluta, venosa, coccinea, glaberrima, supra nitida, subtus glanduloso-punctata, semipollicaria, 2 lin. lata. Petioli $\frac{1}{2}$ lin. longi, tenuissime pubescentes. Flores axillares, solitarii, breviter pedunculati, $\frac{1}{2}$ -pollicares. Calyx tubulosus, 10-sulcatus, glaber, glanduloso-punctulatus, apice 5-dentatus, bilabiatus, dentibus acuminatis, 3 superioribus paullo longioribus. Corolla calyce duplo longior, externe pubescens, tubo interne sericeo, fauce pilosiuscula, limbo bilabiato, labio superiore emarginato, inferiore trilobo, lobis obtusis. Stamina 4, didynama, distantia, inclusa. Filamenta glabra. Antheræ subreniformes. Stylus glaber, exsertus. *G. taxifoliæ proxima.*”—*Kunth. l. c.*

18. *G. TAXIFOLIA* (Humb. et Kunth. *Nov. Gen. et Sp. Amer.* 2. 312).

Hab. in America meridionali: in locis asperis obnubilis Andium Novo-Granatensium in declivitate Parami de Saraguru juxta pagum Oña *Humboldt et Bonpland.*

“*G. ramis cano-villosis, foliis linearibus lanceolatis aut oblongis obtusis basi angustatis integerrimis glabris subtus punctulatis, floribus axillaribus solitariis.*

May 1834.

3 G

"Frutex ramosissimus, ramis junioribus subtetragonis cano-villosis densissime foliosis. Folia petiolata, approximata, linearia, lanceolato-oblonga aut oblongo-obtusa, basi angustata, integerrima, venosa, nervo subtus prominente, coriacea, glabra, subtus punctulata, 4-5 lin. longa, $\frac{1}{2}$ -2 lin. lata. Petioli breves, basi incrassati, infra medium articulati, glabri. Flores axillares, solitarii, breviter pedunculati, pollicares et longiores, pedicellis vix lineam longis pubescentibus. Calyx tubulosus, bilabiatus, striatus, glaber, vix 3 lin. superans, fauce pilis clausa, labio superiore 3- inferiore 2-fido, laciniis acuminatis subæqualibus. Corolla rubra? externe hirtello-pubescent, fauce leviter pilosiuscula. Stamina et stylus exserta."—*Kunth. l. c.*

19. *G. STRIATA* (Ruiz et Pav. ! Syst. Veg. Fl. Per. 148), fruticosa, ramis villosulo-lanatis, foliis parvis ovatis integerrimis planis vel complicatis utrinque glaberrimis striatis vel dorso ciliatis, verticillastris bifloris secundis, calycibus glabris, dentibus brevibus obtusis, fauce intus villosula.

G. striata. Ruiz et Pav. Fl. Per. et Chil. ined. 4. t. 494. f. b.

Hab. in Peruviae collibus aridis ad Tarmæ et Huanuci provincias *Ruiz et Pavon!* (v. s. sp. in herb. Lambert.)

Frutex 3-pedalis, ramosissimus, dense foliosus. Folia sessilia, 2 lin. longa, basi rotundata vel subcordata, rigida, venis parallelis utrinque conspicuis, inferiora acuta, superiora obtusa, floralia conformia. Pedunculi brevissimi. Calyx parum incurvus, rigide striatus, dentes subæquales vel superiores vix longiores. Corolla coccinea? calyce triplo longior, extus pubescens. Stamina (ex icone) breviter exserta.

20. *G. MICROPHYLLA* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 311).

Hab. in America meridionali: in Andibus Pastoensibus locis frigidis prope Rio Blanco inter pagos Guachucal et Tulcan *Humboldt et Bonpland.*

"*G. foliis ovatis obtusis cordatis revolutis integerrimis glabris, margine nervoque medio ciliatis, floribus axillaribus solitariis.*

"Frutex suaveolens, 2-3-pedalis, ramosissimus, ramis densissime confertis, junioribus pubescenti-pilosis. Folia breviter petiolata, ovata, obtusa, cordata, integerrima, margine subrevoluta, venosa, glabra, subtus in nervo medio margineque ciliata, nitida, vix lineam longa. Petioli pilosi. Flores axillares, solitarii, sparsi, pedunculati, subpollicares. Pedunculi vix lineam longi, pubescentes. Calyx tubulosus, 10-sulcatus, scabriusculus, limbo 5-dentato bilabiato, dentibus acutis ciliatis, 3 superioribus paullo brevioribus, fauce calycis nuda. Corolla calyce quintuplo longior, tubuloso-infundibuliformis, rubra, extus tenuissime pubescens, tubo brevi interne sericeo, fauce longissima compressa inferiore latere linea longitudinali piloso-barbata, limbo bilabiato, labio superiore erecto emarginato, laciniis rotundatis, labio inferiore trifido, laciniis rotundatis patenti-reflexis, intermedia subemarginata. Stamina 4, didynama, distantia, vix exserta. Filamenta glabra. Antheræ reniformes, biloculares, loculis utrinque extremitate connexivi transverse affixis oppositis. Stylus exsertus, glaber. Stigma bifidum."—*Kunth. l. c.*

21. *G. JAMESONI*, fruticosa, procumbens, glabra, foliis minimis lato-ovatis obtusis integerrimis planis vel conduplicatis utrinque viridibus glabris, verticillastris subbifloris, calycibus glabris, dentibus brevibus obtusis, fauce intus nuda.

Hab. in Peruvia ad Paramo de Antisana *Jameson!* (v. s. sp. in herb. Hooker.)

Folia ut in *G. revoluta* vix linearia, at forma diversissima, crebra, sessilia, coriacea, supra lævia, subtus eleganter nervosa. Calyces subsolitarii, glaberrimi,

profunde striati, dentibus latis obtusissimis, superioribus patentibus. Corolla minor ac in *G. revoluta*, rubro-carnea, extus pubescens. Stamina omnia fertilia.

22. *G. REVOLUTA* (Ruiz et Pav. ! Syst. Veg. Fl. Per. 149), suffruticosa, procumbens, ramis pubescentibus, foliis minimis subrotundis obtusissimis integerrimis basi cordatis margine revolutis supra glabris viridibus subtus albo-tomentosis, verticillastris subbifloris, calycibus tomentosis, dentibus latis abbreviatis, fauce intus subnuda.

G. revoluta. Ruiz et Pav. ! Fl. Per. et Chil. ined. 4. t. 493. f. b.

Hab. in Peruviae collibus et in saxorum fissuris versus Huassahuassi, Panao, et Huariaca vicos Ruiz et Pavon ! in Cordilleras Peruviae Hænke ! Mathews ! (h. s. sp. comm. a cl. Presl.)

Rami elongati, ramosissimi. Folia numerosa, sessilia, vix lineam longa, bulata, subtus valde revoluta. Floralia et bracteæ conformia. Flores sæpius axillares, solitarii, nunc vero tres in eodem pedunculo (brevissimo). Calyx $2\frac{1}{2}$ lin. longus, cano-tomentosus, subrectus. Faux intus pilis raris barbata. Corolla coccinea, 10-11-linearis, pubescens, parum incurva, basi attenuata. Stamina omnia fertilia, laxe adscendentia, subdistantia.

Species omnino dubiæ.

G. CAPITATA (Spr. Syst. Cur. Post. 225).

Hab. ad Rio Grande Sello.

“*G. capitulis* ovatis longe pedunculatis, bracteis calycibusque spinosis, foliis fasciculatis lineari-oblongis margine revolutis integerrimis, cauleque ramoso hispidis.” —Spreng. l. c.

G. SPICATA (Spr. Syst. Cur. Post. 225).

Hab. ad Rio Grande Sello.

“*G. spicis* terminalibus villosis, foliis subfasciculatis spathulatis subintegerrimis asperis.” —Spreng. l. c.

Species e genere excludendæ.

G. OBOVATA Spreng. = *Franciscea ramosissima*.

G. ORIGANOIDES Reichb. = *Verbenacea Lantanæ* affinis.

XLIX. GLECHON.

Glechon. Spreng. Syst. Cur. Post.

Calyx ovatus vel tubulosus, 13-nervius, æqualis vel subbilabiatus, dentibus 5, binis inferioribus sæpius longioribus. Corolla tubo calycem æquante, intus nudo, limbo bilabiato, labio superiore emarginato vel semibifido, falcato, fornicato vel galeato, erecto vel in inferiorem incumbente, inferiore patente, lobis planis integerrimis, lateralibus latioribus basi ad labium superius sæpe adhærentibus. Stamina fertilia 2 (inferiora), sub labio superiore adscendentia vel ex emarginatura

breviter exserta. Filamenta glabra. Antheræ biloculares, loculis linearibus parallelis divergentibus vel demum divaricatis. Stylus glaber, lobo superiore brevissimo, inferiore elongato complanato. Achenia oblonga, lævia, sicca. Suffrutices vel fruticuli sæpe canescentes. Folia plerumque parva, floralia conformia vel rarius minora, bractæformia. Verticillastri axillares, 2-6-flori, vel rarius versus apices ramorum breviter racemosi. Corollæ flavescentes, carnei vel cærulei.

A Brazilian genus, which, from its habit, calyx, and stamina, it is impossible to remove from *Melissineæ*, although the galeate upper lip of the corolla (which in all other genera of the tribe is plane), is an exception, making it very difficult to assign positive characters to a group which appears to be so natural.

CONSPECTUS SPECIERUM.

Calycis dentes ovati vel lanceolati, acuti vel vix aristati.

Calyx ovatus, breviter dentatus, folio florali multo brevior.

Folia glabriuscula, supra viridia, subtus pallida 2. *G. THYMOIDES*.

Folia utrinque molliter cano-tomentosa 1. *G. SPATHULATA*.

Calyces tubulosi, elongati, superiores folia floralia excedentes.

Folia subintegerrima, crassiuscula, pallida, sub-
avenia 9. *G. RINGENS*.

Folia crenata, viridia, aspera, venosa 10. *G. MYRTOIDES*.

Calycis dentes subulato-aristati, longiores tubum sub-
æquantes vel superantes.

Calyx glaber vel cano-tomentosus.

Folia apice crenata, basi rotundata vel subcor-
data, rarius angustata 5. *G. CANESCENS*.

Folia subintegerrima basi cuneata vel angus-
tata, rarius rotundata.

Folia caulinea vix 2-linearia 3. *G. SERPYLLIFOLIA*.

Folia plerumque 4-linearia 4. *G. MARIFOLIA*.

Calyx villosus vel pilis longis ciliatus.

Folia molliter villosa 6. *G. ORIGANIFOLIA*.

Folia glabra vel pilis longis ciliata.

Folia complicata, basi cordata vel rotun-
data 7. *G. SQUARROSA*.

Folia plana, basi angustata 8. *G. CILIATA*.

1. *G. SPATHULATA* (Benth. in Herb. Mus. Reg. Berol. MSS.), foliis petiolatis subrotundo-spathulatis subcrenatis crassis utrinque canescenti-tomentosis, calycis dentibus brevibus inferioribus longioribus, corollæ labio superiore erecto subgaleato.

Hab. in Brasilia: in pascuis prope Anjo Missionum Uruguayen-
sium et prope Santa Maria provinciæ Rio Grande do Sul vulgatissima
A. de St. Hilaire! in Brasilia meridionali *Sello!* (*h. s. sp. e Mus.*
Reg. Berol., et v. s. sp. in herb. St. Hil.)

Suffrutex basi procumbens, ramis adscendentibus tomentoso-pubescentibus. Folia breviter petiolata, spathulata vel subrotundo-rhomboidea, apice crenata, basi cuneata, integerrima, in petiolum decurrentia, subtus venosa, utrinque tomentosa, floralia conformia, floribus breviora. Verticillastri subbiflori, bractæ minutæ. Calyx subsessilis, ovatus, striatus, tomentosus, intus fauce villosissimus. Corolla extus pubescens, labium inferius patens, lobis patentibus integerrimis subæqualibus.

Antherarum loculi divergentes, demum subdivaricati. Styli lobus superior brevissimus, inferior latus, complanatus, revolutus, margine stigmatifer. Achenia oblonga, læviuscula.

2. *G. THYMOIDES* (Spr. Syst. Cur. Post. 227), foliis petiolatis obovatis subcrenatis utrinque subviridibus subglabris, calycis dentibus brevissimis subæqualibus, corollæ labio superiore maximo galeato.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Frutex ramis subtetragonis cano-pubescentibus. Folia petiolata lato-ovata, subrotunda, obtusa vel emarginata, integerrima vel irregulariter sinuato-crenata, basi cuneata, angustata, integerrima, in petiolum decurrentia, supra viridia, subtus pallidiora, venosa, utrinque glabra, subtus glandulosa, floralia conformia, verticillastri 2-flori. Bracteæ minutæ, lineares. Calyx folio multo brevior, subsessilis, ovatus, striatus, sub-15-nervius, tenuissime pubescens, intus fauce villosissima, dentibus abbreviatis, latis, acutis. Corolla calyce duplo longior, extus pubescens, intus fauce villosissima, labium superius maximum fornicato-galeatum, inferioris lobus medius patens, integerrimus, lobis lateralibus latioribus, ad labium superius subadhærentibus. Antherarum loculi paralleli, lineares. Styli lobus superior brevissimus, inferior complanatus revolutus. Achenia oblonga, lævia.

3. *G. SERPYLLIFOLIA* (St. Hil. MSS.), foliis parvis petiolatis ovatis obtusis integerrimis utrinque subviridibus glabris, calycis dentibus subulatis longioribus tubum æquantibus, corollæ labio superiore magno falcato.

Hab. in Brasilia inter saxa a Santa Theresa ad Rocha provinciæ Cisplatinæ communis *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Rami tenelli, lignosi, elongati, prostrati, glabri, vel vix ad apices tenuissime tomentosi. Folia 2-3 lin. longa, forma *Thymi Serpylli*, avenia, glanduloso-punctata, pallide virentia vel suprema vix canescentia; floralia conformia, sæpius parum majora, calyces excedentia. Verticillastri biflori. Bracteæ minutæ. Calyces sessiles tomentosiusculi, dentibus e basi lanceolato subulato-aristatis, parum inæqualibus. Faux intus dense villosa. Corolla carnea, magnitudine *G. thymoidis*, sed galea minus incumbente.—An *G. marifoliæ* varietas?

4. *G. MARIFOLIA* (Benth. in Herb. Mus. Reg. Berol. MSS.), foliis breviter petiolatis ovatis integerrimis vel vix crenulatis utrinque pallidis tenuissime tomentosis, calycis dentibus setaceis subæqualibus tubum subæquantibus, corollæ labio superiore erecto subgaleato.

Hab. in Brasilia meridionali *Sello!* *A. de St. Hilaire!* (*h. s. sp. e Mus. Reg. Berol., et v. s. sp. in herb. St. Hil.*)

Suffrutex procumbens, basi radicans, ramis cano-tomentosis. Folia brevissime petiolata, nunc lato- nunc oblongo-ovata, obtusa, integerrima vel subcrenata, basi rotundata vel sæpius angustata, juniora cano-pubescentia, adulta glabriuscula, utrinque glandulosa, subtus venosa, floralia conformia. Verticillastri 2- vel rarius pluriflori. Bracteæ minutæ. Calyx sessilis, ovatus, cano-pubescent, striatus, intus fauce villosissima, dentibus subulatis nudis, tubo subbrevioribus. Corolla magnitudine *G. thymoidis*, extus pubescens, labium superius erectum, fornicatum, vix emarginatum, inferius patens, lobis integerrimis lateralibus latioribus. Antherarum loculi lineares, subdivaricati. Styli lobus inferior basi complanatus elongatus, acutus, apice stigmatifer, superius brevius. Achenia oblonga, subcompressa, læviuscula.

5. *G. CANESCENS* (St. Hil. MSS.), foliis subsessilibus subrotundis subcrenatis utrinque canescentibus, calycis dentibus setaceis subæqualibus tubum subæquantibus, corollæ labio superiore erecto subgaleato.

G. candidum. *Benth. in Herb. Mus. Berol. MSS.*

Hab. in Brasilia : in pascuis prope Serra de San Xavier Missionum Uruguayensium, in arenosis inter palmas prope Garapuru, Villanova, &c., provinciæ Sanctæ Catharinæ et inter saxa montis Cerro Aspro provinciæ Cisplatinæ *A. de St. Hilaire !* in Brasilia meridionali *Sello !* (*h. s. sp. e Mus. Reg. Berol., et v. s. sp. in herb. St. Hil.*)

Suffrutex $1\frac{1}{2}$ - $2\frac{1}{2}$ -pedalis, basi radicans, ramis elongatis virgatis cano-tomentosis. Folia sessilia, brevissime petiolata, lato-rotundata, obtusiuscula, crenulata, basi rotundata vel subcordata, rarius angustata, subtus venosa, utrinque plus minusve cano-tomentosa, floralia conformia. Verticillastri 2-6-flori. Bracteæ minutæ. Calyx et corolla omnino *G. marifoliæ*, cujus forsitan varietas est. Corolla carnea (in exempl. Uruguayensibus) vel flavescens punctis purpureis (in exempl. prov. St. Catharinæ) sec. *St. Hilaire*; an varietates plures vel species distinctas conjunxi? An omnes *G. marifoliæ* varietates?

6. *G. ORIGANIFOLIA* (Benth. in Herb. Berol. MSS.), caule hirsuto, foliis sessilibus lato-ovatis subrotundisve crenatis basi cordatis utrinque viridibus tomentoso-pubescentibus villosisve, calycis dentibus subulatis, inferioribus tubo longioribus, corollis dentes calycinos vix excedentibus, labio superiore galeato.

Hab. in Brasilia : in montibus Juruoca et prope Villa Rica provinciæ Minas Geraes *A. de St. Hilaire !* in Brasilia meridionali *Sello !* (*h. s. sp. e Mus. Reg. Berol., et v. s. sp. in herb. St. Hil.*)

Suffrutex procumbens, ramis elongatis, pilis patentibus dense hirsutis. Folia obtusiuscula, subplicata, sæpius reflexa, subtus nervosa, utrinque pilis mollibus villosa, glandulis sub tomento numerosis; floralia conformia, floribus subbreviora. Verticillastri 6-10-flori. Bracteæ minutæ. Calyx subsessilis, ovatus, villosus, dentibus subulatis hirsutis tubo longioribus, fauce intus villosa. Corolla alba vel flavescens, vix dentes calycinos excedens, cæterum *G. spathulatæ*. Achenia ovato-subtriquetra, læviuscula.

7. *G. SQUARROSA* (Benth. in Herb. Mus. Berol. MSS.), foliis subsessilibus ovatis basi rotundatis subcordatisve rigidis complicatis, glabris ciliatisve, calycis dentibus subulatis, inferioribus tubo æqualibus, corollæ labio superiore galeato.

Hab. in Brasilia : in pascuis humidis prope Carrancas provinciæ Minas Geraes et in campos Geraes provinciæ Sancti Pauli vulgaris *A. de St. Hilaire !* in Brasilia meridionali *Sello !* (*h. s. sp. e Mus. Reg. Berol., et v. s. sp. in herb. St. Hil.*)

Suffrutex basi procumbens, ramis adscendentibus vel erectis, nunc glabris vel brevissime pubescentibus, nunc dense villosis. Folia sæpius recurva, 3-4-linearia, acuta, integerrima, margine vix revoluta, rigida, nervosa, glabra, vel ad nervos pilis longis simplicibus ciliata, utrinque glandulosa, floralia conformia floribus breviora. Verticillastri sub-6-flori. Calyx ovatus, rigidus, striatus, extus ad nervos pubescens, intus fauce villosissima, dentibus lanceolato-subulatis, rigidis, ciliatis, tubo longioribus, inferioribus sæpe longe productionibus. Corolla alba vel pallide cœrulescens, extus villosa, labium superius erectum fornicatum, emarginatum, dentes calycinos excedens, inferius brevius, lobis subæqualibus, integerrimis. Antherarum loculi divergentes, subdivaricati. Styli lobus superior brevissimus, inferior recurvus complanatus.

8. *G. CILIATA* (Benth. in Herb. Mus. Berol. MSS.), caule piloso, foliis ovatis oblongisve integerrimis basi angustatis utrinque viridibus ciliatis, calycis dentibus subulatis tubo longioribus, corollæ labio superiore galeato.

Hab. in Brasilia : in provincia Rio Janeiro? *Sello ! Schott !* (*h. s. sp. e Mus. Reg. Berol., et v. s. sp. in herb. Endlicher.*)

Suffrutex? basi procumbens, ramis erectis pubescentibus et pilis longis albidis ciliatis. Folia semipollicaria, inferiora brevissime petiolata, ovata, rotundata, superiora et floralia subsessilia, longiora, elliptico-lanceolata, omnia obtusa, integerrima vel hinc inde dente unico alterove serrata, utrinque glabra, margine pilis longis albidis ciliata, nervosa, glandulosa, floralia flores duplo superantia. Verticillastri dense sub-6-flori. Bracteæ minutæ. Calyces extus hirsuti, ovati, intus fauce villosissima, dentibus lineari-subulatis, tubum subæquantibus, ciliatis, se invicem subæqualibus. Corolla dentibus longior, extus villosa, labium superius erectum fornicatum, profunde emarginatum, inferius ei subæquale, lobis rotundatis, medio emarginato? Stamina et stylus *G. squarrosæ*.

9. *G. RINGENS* (Benth. in Herb. Mus. Berol. MSS.), foliis petiolatis ovatis integerrimis utrinque subcanescentibus, floralibus parvis, dentibus calycinis lanceolatis tubo brevioribus, corollis calyce triplo longioribus, labio superiore elongato falcato.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol.*)

Suffrutex erectus, ramis cano-tomentosis, habitu *Helianthemum halimifolium*. Folia *Atriplicis Halimi*, petiolata, ovata, obtusa, integerrima, basi angustata, 1-nervia, utrinque brevissime cano-tomentosa, glandulosa; floralia parva, oblonga, calyce breviora. Verticillastri laxi, 6-10-flori, pedunculo communi utrinque pedicellis longior. Bracteæ oblongo-lineares calyce breviores. Calyx tubulosus, striatus, extus tomentoso-pubescent, intus fauce villosissima, dentibus ovatis, acutis, tubo triplo brevioribus. Corolla extus pubescens, calyce triplo longior, ringens, labium superius elongatum, falcatum, emarginatum, inferius brevius, patens, lobis rotundatis. Antherarum loculi divergentes. Styli lobus superior abbreviatus, inferior elongatus, complanatus, recurvus. Achenia ovato-compressa, læviuscula.—Habitu et characteribus ab aliis speciebus parum recedit, sed vix genus proprium.

10. *G. MYRTOIDES* (St. Hil. MSS.), ramis villosis, foliis ovatis crenatis basi angustatis utrinque viridibus vel subtus subcanescentibus subasperis, calycis tubulosi dentibus lanceolatis acutis, tubo brevioribus, corollæ labio superiore erecto fornicato.

Hab. in Brasilia: in locis altis in Serra do Papagaio provinciæ Minas Geraes communis *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Frutex 3-4-pedalis, ramosissimus. Rami virgati, dense foliosi. Folia semipollicaria, obtusa, basi in petiolum brevem angustata, rigida, venosa, pubescentia brevi scabriuscula, floralia conformia, calyces æquantia vel vix breviora. Verticillastri 2-6-flori, versus apices ramorum pauci, laxè approximati, subsecundi. Calyces breviter pedicellati, 3-4 lin. longi, virides, striati, dentes subæquales vel inferiores profundius fissi, basi lanceolati, apice aristati, latitudini tubi æquales. Faux intus dense villosa. Corolla cœrulea, calyce dimidio longior, extus pubescens. Labia subæqualia, superius emarginatum vix incurvum. Odor totius plantæ fortis *Menthae Pulegii*.—Species corollæ labio superiore minus concavo *Keithiæ* affinis, habitu etiam inter *Glechona* et *Keithiam rubiaceam* quasi media.

L. KEITHIA.

Calyx tubulosus, sub-13-nervius, striatus, ore æquali vel obliquo, dentibus 5 subæqualibus, fauce intus nuda vel villosa. Corolla tubo exserto, limbo bilabiato, labio superiore erecto emarginato plano, inferiore patente trifido, lobis planis subæqualibus. Stamina 2 (inferiora), fertilia, adscendentia, superiorum vestigia nulla. Antheræ biloculares, connectivo crasso, loculis distinctis divaricatis. Styli lobi subæquales

vel inferior longior, complanatus, superiorem basi involvens.—Herbæ suffrutices fruticesve. Verticillastri nunc axillares, nunc in spicis terminalibus approximati. Corolla sæpe coccinea.

A Brazilian genus differing from *Melissa* by the more regular calyx, and the abortion of two stamina, which latter character alone separates it from *Gardoquia*. The plants which compose it are very different from each other in habit, but are so closely allied in characters that they can scarcely constitute separate genera.

SECTIO I. ERIOTHYMUS.

Frutex ramis divaricatis, foliosis. Cymæ axillares, pedunculatæ, paucifloræ. Calycis faux intus villosa. Corollæ labium superius bifidum.—An genus proprium?

1. K. RUBIACEA, fruticosa, ramis foliosis foliisque subglabris, cymis pedunculatis paucifloris umbelluliformibus molliter pilosissimis, calycibus acute dentatis, fauce intus nuda.

Hab. in Brasilia: in montosis ad Villa Rica et alibi provinciæ Minas Geraes *Martius!* (v. s. sp. in herb. Mus. Reg. Monac.)

Frutex habitu *Rubiacearum*. Rami divaricati, acute tetragoni, angulis pubescentibus, inter flores molliter pilosi, cæterum glabri. Folia semipollicaria, subsessilia, ovata, obtusa, integerrima, basi rotundata vel cordata, utrinque glaberrima, subtus uninervia, pallida, glanduloso-punctata, margine subrevoluta. Inflorescentia nunc axillaris, ramis ad apicem excurrentibus, et foliis floralibus caulinis omnibus conformibus, nunc terminalis, foliis floralibus supremis multo minoribus. Verticillastri in quoque ramo 2-3. Pedunculus communis utrinque 3-5-linearis, apice umbellulam vel cymam brevem 3-6-floram ferens. Pedicelli 3-5-lineares. Calyx 4-linearis, breviter dentatus, uti pedunculus, bracteæ, pedicellique, pilis longis patentibus mollibus cæruleo-rubris dense obsessus; fructifer vix acutus, intus fauce pilorum annulo clausa. Corolla dentibus lato-lanceolatis, acutis, rectis, corollæ tubus breviter exsertus, labium superius bifidum, inferius vix longius, trifidum, lobis omnibus planis oblongis, obtusis, subæqualibus. Stamina exserta. Antherarum connectivum crassum, loculi divaricati.

SECTIO II. KEITHIA.

Rami herbacei, elongati, procumbentes, foliosi. Verticillastri axillares pauciflori. Calycis faux intus nuda. Corollæ labium superius vix emarginatum.

2. K. SCUTELLARIOIDES, procumbens, ramis elongatis foliosis glabris vel angulis ciliatis, foliis glabris, verticillastris axillaribus, floribus subsessilibus, corollis calyce vix duplo longioribus.

Hab. in Brasilia: in summo monte Itambé provinciæ Minas Geraes *Martius!* in paludosis prope Sitio deserti occidentalis ejusdem provinciæ et prope S. Xavier provinciæ Missionum *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (h. s. sp. comm. a cl. Otto, et v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.)

Caules herbacei, procumbentes, rami subsimplices, elongati, acuti, tetragoni,

angulis brevissime obverse ciliatis, rarius dense pilosis. Folia sessilia, lanceolata, obtusa, margine brevissime crenata, basi cordata, glabra, rigida, nitida, nervo medio subtus prominulo, 6-9 lin. longa, floralia conformia. Verticillastri axillares, sæpius 6-flori. Flores secundi, sessiles. Bractæ lineares, glabræ, calyce dimidio breviores. Calyx glaber vel nervis ciliatis, dentibus linearibus acutis brevissime ciliatis, superioribus parum longioribus. Corolla extus pubescens, purpurea, semipollicaris, tubo exserto superne parum dilatato; labium superius breviter emarginatum, erectum, inferius longius, lobis rotundatis, medio emarginato. Stamina corollam subæquantia, antherarum loculis divaricatis, superiorum vestigium nullum. Stylus exsertus brevissime? subæqualiter bifidus, lobis subulatis. Achenia ovoidea, lævia.

3. *K. PILOSA*, procumbens, ramis elongatis foliosis, foliis calycibusque pilosis, verticillastris axillaribus, floribus subsessilibus, corollis calyce plus duplo longioribus.

Hab. in Brasilia: in pascuis humidis ad Morongara et prope Castro in campos Geraes provinciæ Sancti Pauli *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto, et v. s. sp. in herb. St. Hil.*)

Habitus et folia omnino *K. scutellarioidis*, sed caules et folia pilis longis albidis sparsis obsessa. Flores subsolitarii, fere duplo majores. Calyx major et obliquior quam in *K. scutellarioide*, pilosus, dentibus lanceolatis. Corolla atro-purpurea, 9-10 lin. longa, extus pubescens, tubo longe exserto incurvo, fauce dilatata.

SECTIO III. RHABDOCAULON.

Suffrutices vel herbæ, ramis erectis virgatis basi foliosis vel fere omnino nudis. Verticillastri in spicis terminalibus approximati. Calyx acute dentatus, fauce intus villosissima.

4. *K. VILLOSA*, caule suberecto, ramoso, cano-villoso, foliis sessilibus oblongo-linearibus obtusis margine revolutis utrinque villosis, racemis spiciformibus densis subramosis, verticillastris 6-floris approximatis, floribus sessilibus, corollis calyce cano-villoso subduplo longioribus.

Hab. in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto.*)

Caules herbacei, sesquipedales, tetragoni, pilis subreflexis dense villosi, basi ramosissimi, foliosi, superne subnudi. Folia semipollicaria, integerrima; floralia acuta, calyce multo breviora. Racemi 2-3-pollicares, densissimi. Calyces subtri-lineares, 13-nervii, substriati, cano-villosissimi, dentibus brevibus acutissimis, subrecurvis, glabris, subæqualibus. Corolla extus villosissima, tubo exserto, fauce vix dilatata; labium superius emarginatum, inferius planum, lobo intermedio latiore integro. Stamina 2, vix exserta, antherarum loculis divaricatis linearibus, superiorum vestigium nullum. Stylus exsertus, lobo inferiore complanato superiorem vix breviorē basi subamplectente.

5. *K. LAVANDULOIDES*, caule erecto, ramoso, sericeo-tomentoso, foliis sessilibus oblongo-linearibus acutis margine subrevolutis utrinque sericeis, racemis spiciformibus densis basi interruptis, verticillastris multifloris, floribus sessilibus, corollis calyce sericeo dimidio longioribus.

Hab. in Brasilia: in campis prope Congonhas do Campo provinciæ Minas Geraes et in humidis prope Fazenda de Carapicuva provinciæ Sancti Pauli *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. comm. a cl. Otto, et v. sp. in herb. Mus. Berol. et St. Hil.*)

Ab affini *K. villosa* differt pubescentia brevi sericea adpressa, foliis utrinque angustatis longioribus subplanis, et corollis brevioribus.

6. *K. GRACILIS*, caule herbaceo, ramis erectis tetragonis subnudis subglabris, racemo terminali, verticillastris remotis 2-6-floris, calycis dentibus acutis.

Hab. in Brasilia : in campis herbidis provinciæ Minas Geraes prope Carapatos provinciæ Sancti Pauli et prope Rio Pardo provinciæ Rio Grande do Sul *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Caules subsimplices, juncei, 1-1½-pedales, tetragoni, glabri vel faciebus tenuissime pubescentibus. Folia perpauca, plerumque vix 2-3 lin. longa; floralia uti bracteæ vix 1 lin. longa, glabra. Calyces subsessiles vel breviter pedicellati, 3-4 lin. longi, tubulosi, villosi, dentes breviter aristati. Corolla purpurascens, calyce dimidio longior, pubescens. Stamina inclusa.

7. *K. DENUDATA*, caule herbaceo, ramis erectis tetragonis subarticulatis subnudis glabris, racemo brevi terminali denso, floribus pedicellatis, corollis calyce pubescente ultra duplo longioribus.

Hab. in Brasilia : in campis desertis siccis provinciæ Minas Geraes *Martius!* *A. de St. Hilaire!* in Brasilia meridionali *Sello!* (*h. s. sp. e Mus. Reg. Berol., et v. s. sp. in herb. St. Hil. et Mus. Reg. Monac.*)

Caules e basi duro erecti, bipedales et ultra, subsimplices, crassi, tetragoni, faciebus sulcatis. Folia perpauca, sessilia, sæpe fere abortiva, rarius 6-8 lin. longa, linearia, obtusa, integerrima, glabra, superiora et floralia 1-2 lin. longa, acuta. Racemus oblongus, laxus, subramosus, 2-pollicaris. Bracteæ 1 lin.; pedicelli 2 lin. longi. Calyx 4 lin. longus, profunde striatus, atrovirens, breviter et parce pubescens, dentibus brevibus lato-lanceolatis, acutis, subæqualibus, ore intus villosissimo. Corolla extus sericeo-villosa, alba vel sulphurea, tubus longe exsertus, superne vix dilatatus. Stamina 2, vix exserta, antherarum loculis divaricatis linearibus, superiorum vestigium nullum. Stylus breviter exsertus, lobis subæqualibus, inferiore latiore superiorem basi subamplectente. Achenia ovoidea, lævia.

SECTIO IV. GYMNOCYLIX.

Herba, ramis erectis, strictis, subnudis. Verticillastri pauciflori, distincti, subracemosi. Calyx obtuse dentatus, fauce intus nuda.

8. *K. COCCINEA*, caule herbaceo, ramis erectis tetragonis subarticulatis subnudis glabris, verticillastris paucis paucifloris versus apicem caulis subracemosis.

Hab. in Brasilia : in summo monte Itambé provinciæ Minas Geraes *Martius!* in paludosis in Serra da Ibitipoca ejusdem provinciæ *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil., et Mus. Reg. Monac.*)

Rami et folia omnino *K. denudatæ*. Verticillastri sæpius biflori. Flores breviter pedicellati. Bracteæ parvæ. Corolla coccinea, ultrapollicaris, calyce subtriplo longior. Stamina exserta.

LI. THYMBRA.

Thymbra. Linn. Gen.

Calyx erectus, oblongus, supra planus, bilabiatus, labio superiore tridentato erecto, inferiore bifido, fauce intus villosa. Corolla tubo subexserto, labio superiore erecto emarginato subplano, inferiore patente trifido, lobis planis, medio parum majore. Stamina 4, sub labio superiore adscendentia, didynama, inferioribus longioribus. Antheræ per paria approximatae, biloculares, loculis distinctis parallelis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis.—Suffrutex habitu *Hyssopo* characteribus *Melissæ* affinis.

A single Mediterranean species.

1. T. SPICATA (Linn.! Spec. 795).

T. spicata. Sibth. et Sm.! Fl. Græc. 6. 37. t. 546.

T. verticillata. Linn.! Spec. 796. (var. *hortensis*, *monstruosa*?)

T. ambigua. Clarke, Trav. 4. 239.

Hab. in regione Mediterranea Orientali: in ericetis, collibus siccis, &c., Achaïæ Sibthorp! Melos Beaupré! Sami Durville, Cypri Clarke, Cretæ Sibthorp! Olivier! Asiæ minoris Sibthorp! Smyrnæ Fleischer! Palestinæ Sieber! Bové! &c. (*h. s. sp.*)

Suffrutex durus, rigidus, procumbens, ramis adscendentibus, semipedalibus pedalibusve, vix pubescentibus. Folia ramorum sterilium parva, subdecussata, obtusa, fertiliū fere pollicaria, linearia, acuta, rigida, uninervia, plana vel complicata, ciliata. Verticillastri multiflori, in spica 1-6-pollicari nunc subinterrupta approximati. Folia floralia et bracteæ lato-lanceolata, acuta, colorata, ciliata, cum floribus in verticillastro arcte imbricata, calyces obtegentia. Calyces sessiles erecti, adpressi, glabri vel nervis ciliatis, labio superiore plano, dentibus brevibus lanceolatis, inferioris laciniis subulatis ciliatis. Corollæ exsertæ, tubo bracteas subæquante.

LII. DICERANDRA.

Ceranthera. Elliott Bot. S. Carol. et Georg. 2. 93. non Beauv.

Dicerandra. Benth. in Bot. Reg. 15. ad calc. n. 1300.

Calyx sub 13-nervius, tubulosus, striatus, bilabiatus, labio superiore patente integro vel breviter tridentato, inferiore bifido, fauce intus pilosa. Corolla tubo exserto recto intus nudo, bilabiata, labio superiore erecto subplano vix emarginato, inferiore patente trifido. Stamina 4, didynama, inferioribus longioribus, adscendentia, approximata. Antheræ biloculares, loculis divaricatis, apice calcaratis, calcaribus in utroque loculo æqualibus rectis acutis et loculis ipsis longitudine æqualibus. Stylus villosus, apice bifidus, lobis subulatis æqualibus, apice stigmatiferis.

A North American plant, allied to *Satureineæ* in habit, with the calyx and corolla of *Melissa*, but well characterised by the remarkable form of the anthers.

1. D. LINEARIS (Benth. in l. c.).

Ceranthera linearifolia. Elliott! l. c.

Hab. in America boreali : in Carolina inter flumina Flint et Chatahouchie *Elliott* ! (v. s. sp. in herb. *Hooker et Torrey*.)

Habitus *Hyssopi officinalis* varietatum angustifoliarum. Caules erecti, virgati, pubescentes. Folia sessilia, anguste linearia, $\frac{1}{2}$ -1-pollicaria, integerrima, glabra, ad axillas subfasciculata. Verticillastri sub-6-flori ad apices ramorum approximati. Bracteæ minutæ, setaceæ. Pedicelli breves. Calyces 4 lin. longi, erecti, glabri, basi virides, apice membranacei albidii. Corolla calyce duplo longior, tenuiter pubescens.

LIII. POGOGYNE.

Calyx sub 15-nervius, campanulatus, striatus, dentibus rectis lanceolatis, 2 inferioribus 3 superiores duplo superantibus, fauce intus nuda. Corolla tubo exserto recto intus nudo, bilabiata, labio superiore erecto subplano integro, inferiore patente trifido, lobis planis integris. Stamina 4, didynama, inferioribus longioribus, adscendentia, apice approximata. Antheræ biloculares, loculis parallelis distinctis muticis. Stylus villosus, apice bifidus, lobis subulatis æqualibus, apice stigmatiferis. — Herbæ. Verticillastri ad apices ramorum dense spicati, foliis floralibus, bracteis, calycibusque pilis longis albidis ciliatis.

A Californian genus.

1. *P. DOUGLASII*, foliis floralibus bracteisque flores superantibus, staminibus corolla brevioribus, dentibus calycinis inferioribus tubo plus duplo longioribus.

Hab. in California septentrionali *Douglas* ! (h. s. sp. e *Mus. Soc. Hort. Lond.*)

Caules erecti, pedales, parum ramosi, glaberrimi. Folia petiolata, 1-1 $\frac{1}{2}$ -pollicaria, oblongo-obtusa, integerrima, basi longe angustata, utrinque viridia, glabra, superiora et floralia (cæterum conformia) rarius hinc inde dentata. Spica oblonga, 2-3-pollicaris. Bracteæ lineares, acutæ, subfoliaceæ, uti folia superiora et dentes calycini virides et glabræ, sed pilis longis albidis rigidis margine ciliatæ. Dentes calycini inferiores tubo triplo longiores. Corolla purpurascens? intus fauce pilosa.

2. *P. MULTIFLORA*, foliis floralibus bracteisque corolla brevioribus, staminibus exsertis.

Hab. in California septentrionali *Douglas* ! (h. s. sp. e *Mus. Soc. Hort. Lond.*)

Præter characteres supra notatos differt a *P. Douglasii* caule divaricato-ramosissimo, spicis minoribus numerosis, et floribus minoribus. Dentes calycini inferiores vix tubo duplo longiores.

3. *P. PARVIFLORA*, foliis floralibus flores superantibus, staminibus corolla brevioribus, dentibus calycinis inferioribus vix tubo longioribus.

Hab. in California septentrionali *Douglas* ! (h. s. sp. e *Mus. Soc. Hort. Lond.*)

Affinis *P. Douglasii*, sed spica vix pollicaris, folia angustiora parva, et flores dimidio minores.

LIV. LEPECHINIA.

Lepechinia. Willd. Hort. Berol. 1. 21.

Calyx inflato-campanulatus, reticulato-venosus, apice truncatus subbilabiatus, labio superiore bidentato, inferiore tridentato, dentibus omnibus aristatis, fauce intus nuda. Corolla calycem æquans, tubo intus nudo, limbo bilabiato, labio superiore recto subplano emarginato, inferiore trifido, lobis planis integris subpatentibus. Stamina 4, didynamia, inferioribus longioribus, adscendentia. Antheræ approximatae, loculis subparallelis. Stylus glaber, apice subæqualiter bifidus. Achenia sicca, lævia, nigra.—Herbæ. Verticillastri pluriflori remoti vel spicati.

A Mexican genus.

1. *L. SPICATA* (Willd. Hort. Berol. 1. 21. t. 21), caule erecto, verticillastris in spica terminali congestis, calycibus fructiferis clausis.

L. spicata. Bot. Reg. 15. t. 1292.

Horminum caulescens. Orteg. Dec. 63.

Ulricia pyramidata. Jacq. ex Steud. Nom. Bot. 413.

Hab. in Mexico: in umbrosis montium prope Ario et Santa Rosa de la Sierra *Humboldt et Bonpland*, prope Xalapam *Schiede et Deppe*. (*h. s. c. et v. s. sp. in. herb. Lambert.*)

Caules 1-1½-pedales, tetragoni, pilis brevibus paucis pubescentes. Folia sessilia, 2-6-pollicaria, ovata, obtusa, crenulata, basi cuneata, rugosa, pubescentia, utrinque viridia, floralia sub spica subconformia, minora, sessilia, in spica bractæformia, calyces subæquantia. Bractæ subnullæ. Spica oblonga vel subglobosa, 1-1½-pollicaris. Calyces pubescentes, fructiferi valde inflati, et labiis incumbentibus dentibusque longe aristatis intertextis clausi. Corolla parva, flavescens.

2. *L. PROCUMBENS*, caule procumbente, verticillastris secundis remotis, calycibus fructiferis patentibus.

Hab. in Mexico *Karwinski!* (*v. s. sp. in herb. Mus. Reg. Monac.*)

Rami herbacei, subsimplices, villosi, tetragoni. Folia petiolata, inferiora ovata, superiora oblonga, omnia obtusa, crenata, basi subcordata, floralia infima subconformia, sessilia, superiora parva, bractæformia. Bractæ minutæ. Verticillastri pauci, 6-10-flori. Calyces breviter pedicellati, declinati, subnutantes, pubescentes, fructiferi ample campanulati, dentibus brevius aristatis quam in *L. spicata*. Corolla *L. spicatae* parum longior.

Species e genere excludenda.

L. CLINOPODIFOLIA Willd. = *Mentha Dahurica*.*

* Dr. Fischer informs me he does not recollect sending any seeds or specimens under this name, which, by some blunder or other, the plant has obtained in several herbaria. The specimens are always indifferent, and evidently belong to the same species as Willdenow's *Lepechinia clinopodifolia*, and are, as far as I have been able to ascertain, those of a *Mentha*.

TRIBUS VI. SCUTELLARINÆ.

CALYX bilabiatus, labio superiore truncato, integro, vel subtridentato. Corolla tubo exserto adscendente intus annulato vel nudo, limbi labio superiore fornicato. Stamina 4, sub labio superiore adscendentia, didynama, inferioribus longioribus.

If this tribe were confined to *Scutellaria* and *Perilomia*, it would have been more natural; but *Prunella* and *Cleonia* are so much more nearly connected with *Scutellaria* than with any other genus, that I thought it more convenient to extend the character of the tribe so as to include all four, than, by multiplying the tribes, to reduce them almost to single genera.

LV. PRUNELLA.

Prunella. Linn. Pers.

Brunella. Mœnch. Lam. DC. F. Hamilt. Monogr. in Ser. Bull. Bot. 1. 153.

Calyx tubuloso-campanulatus, irregulariter sub-10-nervius et reticulato-venosus, supra planus, bilabiatus, labio superiore plano lato truncato breviter tridentato, inferiore semibifido, laciniis lanceolatis, fauce intus nuda. Corollæ tubus amplus, subexsertus, adscendens, intus prope basin pilis squamisve brevibus annulatus, sub fauce subtus inflatus, ad faucem parum contractus, labium superius erectum galeatum, supra subcarinatum integrum, inferius dependens, lobis lateralibus oblongis deflexis, medio rotundato concavo crenulato. Stamina 4, didynama, inferioribus longioribus, adscendentia. Filamenta basi edentula, glabra, apice, præsertim superiora, breviter bidentata, dente inferiore antherifero. Antheræ sub labio superiore per paria approximate, liberæ, biloculares, loculis distinctis divaricatis. Gynobasis æqualis recta. Stylus glaber, apice bifidus, lobis subulatis, extremitate stigmatiferis. Achenia oblonga, sicca, lævia.—Herbæ. Verticillastri 6-flori, dense spicati. Folia floralia bractæformia, orbiculata, persistentia, calyces æquantia et cum iis imbricata.

This genus is spread over nearly the whole world. It is related to *Melissa* by the calyx; but the galeate upper lip and annulate tube of the corolla remove it from the tribe of *Melissinæ*. It is also allied to *Scutellaria*, though differing in many essential points.

1. *P. HYSSOPIFOLIA* (Lam. Fl. Fr. 2. 366. sub *Brunella*), foliis sessilibus oblongo-linearibus lanceolatisve integerrimis strigoso-hispidis, calycis labii superioris dentibus lateralibus lanceolatis.

B. canadensis. Mill. Dict. n. 2?

P. hyssopifolia. Reichb. Ic. Bot. Eur. 3. 42. t. 243.

Hab. in Europæ mediterranæe siccis apertis : in Hispania ? Gallia australi ! et Pedemontio ! (*v. v. et h. s. sp.*)

Caules adscendentes, semipedales vel vix pedales, uti folia rigidiores quam in *P. vulgari*, et pilis rigidis ciliato-hispidi. Folia constanter integerrima vidi et sessilia, nisi inferiora basi in petiolo brevissimo angustata, media et superiora basi rotundato-subamplexicaulia, floralia et spicæ *P. vulgaris*. Calyx *P. grandifloræ*, dentibus lateralibus labii superioris intermedio sæpius æqualibus, rarius longioribus ut in icone Hamiltoniano. Corolla *P. vulgari* major, *P. grandiflora* minor, purpurea, rarius alba. Species a *P. vulgari* certe distincta.

2. *P. GRANDIFLORA* (Mœnch. Meth. 414. sub *Brunella*), foliis petiolatis ovatis integerrimis dentatisve, calycis labii superioris dentibus lateralibus lanceolatis, corollis amplis calyce plus duplo longioribus.

P. speciosa. Wender. Schrift. Nat. Ges. Marb. ?

P. hastæfolia. Brot. Fl. Lus. 1. 181.

Hab. in Europa fere omni cum *P. vulgari* in sylvis locisque umbrosioribus. (*v. v. et h. s. sp.*)

Vix, nisi florum magnitudine, a *P. vulgari* differt, et forsitan ejus mera varietas. Herba sæpius elatior est, nunc fere glabra nunc villosa. Folia sæpius, præsertim basi, dentata, nunc subhastata, interdum integerrima. Corolla ultrapollinaris, violacea vel purpurea. Calycis labii superioris dentes laterales nunc ut in icone Hamiltoniano intermedio sublongiores, sæpe vero breviores, latiores, subtruncati.

3. *P. VULGARIS* (Linn. Spec. 837), foliis petiolatis ovatis oblongisve integris dentatis vel inciso-pinnatifidis, calycis labii superioris dentibus truncatis aristatis submuticisve vel rarius sublanceolatis, corollis calyce dimidio vel vix duplo longioribus.

α hispida, caule foliisque (subintegris) villosis-hispidissimis.

P. hispida. Benth. in Wall. Pl. As. Rar. 1. 66.

P. hirsuta. Wender. Schr. Nat. Ges. Marb. ?

P. hirta. Bernh. ?

β vulgaris, foliis integris ovatis oblongisve, glabris vel sparse hispidis.

P. vulgaris α. Linn. Spec. 837. Hook. Fl. Lond. v. 3. ic.

B. officinalis. Crantz. Stirp. Austr. 279.

P. intermedia. Brot. Fl. Lus. 1. 180. non Reichb.

P. latifolia. Donn Hort. Cant.

P. reptans. Dumort. Florul. Belg. 44.

P. surrecta. Dumort. Florul. Belg. 44.

B. Fischeriana. F. Hamilt. Monogr. 164 ?

B. pennsylvanica. Willd. Enum. Hort. Berol. 631. exempl. latifolia.

P. caroliniana. Mill. Dict. n. 6.

B. æquinoctialis. Humb. et Kunth ! Nov. Gen. et Sp. Amer. 2. 323. t. 162.

P. ovata. Pers. Syn. 2. 137.

γ elongata, foliis integris oblongo-lanceolatis, glabris vel parce villosis.

P. elongata. Dougl. ! MSS.

B. pennsylvanica. Willd. Enum. Hort. Berol. 631. exempl. angustifolia.

B. australasica. Moric. apud F. Hamilt. Monogr. 162. t. 7. f. A. B.

P. angustifolia. Wender. Schr. Nat. Ges. Marb. ?

δ parviflora, foliis subintegris ovatis sparse hispidis, corollis vix calycem excedentibus.

B. parviflora. Poir. Dict. Suppl. 1. 711.

ε *pinnatifida*, foliis caulinis omnibus vel plurimis incisis pinnatifidisve, corollis purpureis.

P. longifolia. Pers. Syn. 2. 137. Reichb. Icon. Bot. Eur. 6. 21. t. 588.

P. pinnatifida. Pers. Syn. 2. 137.

P. incisa. Link Enum. Hort. Berol. 3. 121?

P. dissecta. Wender. Schr. Nat. Ges. Marb.?

P. vulgaris pinnatifida. Reichb. Ic. Bot. Eur. 3. 39. t. 239.

ζ *laciniata*, foliis caulinis inciso-pinnatifidis vel infimis integris, corollis albis.

P. laciniata. Linn. Spec. 837. Reichb. Ic. Bot. Eur. 3. 38. t. 238.

B. sulfurea. Mill. Dict. n. 5?

P. alba. Pall. Bieb. Fl. Taur.-Cauc. 2. 67.

B. verbenæ foliis. Vaill. Bot. Par. t. 5. f. 1.

Hab. fere in toto orbe terrarum: in Europa omni ad vias et sepes in sylvis apertis, pratis siccis, &c. vulgatissima, a Lusitania! Sicilia *Gussone*, agro Byzantino et Græcia *Sibthorp*! *Durville*, usque ad Scotiam! Lapponiam *Wahlenberg*, et Petropolim *Sobolewski*; in Africa boreali prope La Calle *Desfontaines*; in Asiæ regione Altaico *Ledebour*, Tauro-Caucasico! Caspico *C. A. Meyer*, Cashmeriano *Royle*! Himalayense *Wallich*! et in montibus Peninsulæ indicæ *Wight*! in Japonia vulgaris *Thunberg*, in Australiæ Terra Van Diemen *Gunn*! et ad Portum Jackson *R. Brown*; in America boreali vulgaris a Canada! et ora boreali occidentali, ubi vulgatissima *Douglas*! *Scouler*! *Chamisso*! usque ad montes regionis æquinotialis *Schiede et Deppe*! *Humboldt et Bonpland*! *Gudot*! α præcipue in montibus indicis, in Europa australi rarius; β in Europa et Asia vulgatissima, in America æquinotiali et Australia, in America boreali rarior; γ in America boreali vulgaris, in Europa et Asia rarior; δ in Europa præsertim mediterranea occidentali, in boreali rarior; ε in Europa australi; ζ in Europa frequens, in America boreali occurrit at raro. (*v. v. et h. s. sp.*)

Caules herbacei, a basi ramosi. Rami basi decumbentes, rarius reptantes, floriferi adscendentes, nunc vix 2-3-pollicares, nunc (in umbrosis) sesquipedales. Planta nunc omnino glabra, sæpius pilis albis rigidis sparsis plus minusve hispida præsertim ad ramorum partem superiorem et nervos foliorum, nunc in var. α in omni parte villosissima. Folia caulina (excepto pari supremo) constanter petiolata, forma valde variabilia, infima et ramorum steriliū fere semper etiam in var. ε et ζ integra et ovata, omnia utrinque viridia vel subtus pallida, rugosa, vel rarius in exempl. cultis lævia, subcarnosa. Par supremum caulinorum sessile et basi sæpe subdilatatum (forma floralibus approximans). Floralia imbricata, sessilia, orbiculata, infima sæpe longe acuminata, cætera breviter aristata, margine plus minusve ciliata, rarius in var. γ nuda, membranaceo-reticulata, superficie subglabra. Verticillastri 6-flori, in spica oblonga vel cylindrica imbricati. Bracteæ nullæ. Calyces sessiles vel breviter pedicellati, basi uti pedicelli sæpius hispidi, apice purpurascens, labii superioris dentes nunc truncati fere evanidi, sæpius breves aristulati, laterales obcordati ovati vel rarius lanceolati, in eadem spica sæpe variabiles, nec mihi formæ a cl. Fr. Hamilt. in l. c. descriptæ et delineatæ ullo modo constantes videntur. Corollæ violacæ, purpurascens, albæ vel rarius carneæ. Galea glabra vel pilosa.

Species e genere excludendæ.

P. INTERMEDIA Reichb. = *Cleonia Lusitanica*.

P. INDICA Burm. = *Acrocephalus capitatus*, cum *Acanthacea* quadam in herbario Burmanniano sub hoc nomine miscitur.

LVI. CLEONIA.

Cleonina. *Linn. Gen.*

Calyx campanulatus, 10-nervius, oblique bilabiatus, labio superiore lato breviter tridentato, inferiore bifido sinubus pilosis. Corollæ tubus tenuis, exsertus, adscendens, intus nudus, fauce parum dilatata. Labium superius erectum, galeatum, carinatum, integrum, inferius breve dependens, lobis lateralibus oblongis suberectis, inferiore patente emarginato-bifido. Stamina 4, didynama, inferioribus longioribus, adscendentia. Filamenta basi edentula, glabra, apice breviter bifurca, dente superiore subulato, inferiore subcomplanato antherifero. Antheræ per paria approximatae, biloculares, loculis divaricatis. Gynobasis subæqualis. Stylus apice breviter quadrifidus, lobis subæqualibus, subulatis, apice stigmatiferis. Achenia magna, orbiculata, subcompressa.

This genus, consisting of a single Portuguese and North African plant, connects *Prunella* with *Scutellaria*, having most of the characters of the former, and resembling the latter in the form of the corolla.

1. C. LUSITANICA (Linn.! Spec. 837).

Prunella intermedia. Reichb.! Ic. Bot. Eur. 3. 4. t. 205. non Brot.

Hab. in Hispania *Thibaud!* in Arragoniæ campis sterilissimis *Vahl!* Lusitania *Brotero, Martius!* in Barbariæ arvis prope Mayane *Desfontaines. (h. s. sp. e herb. Gouan, comm. a cl. Hooker.)*

Habitus *Prunellæ vulgaris* var. *laciniatæ*. Caulis herbaceus, annuus, basi ramosus, ramis semipedalibus vel vix pedalibus hispidis. Folia sessilia, oblongo-lanceolata vel linearia, obtusa, profunde dentata vel semipinnatifida, basi angustata, rugosa, utrinque viridia, subhispida, floralia minora acuta, apice uti lacinia longe aristata, hispida. Verticillastri 6-flori, in spica laxa approximati. Bractea nullæ. Pedicelli breves, erecti, ad axin adpressi, rigidi, complanati. Calyx brevis, amplus, nervis 10 prominentibus, inter nervos membranaceus, extus hispidus, intus maturatione pilis marginalibus densis subclausus, dentes labii superioris breviter, lacinia inferioris longe aristati. Corolla forma et magnitudine fere *Scutellariæ galericulatæ*, cœrulea aut violacea, extus pubescens, calyce subtriplo longior.

LVII. SCUTELLARIA.

Scutellaria. *Linn. et Auct.*Cassida. *Tourn. Mæench.*

Calyx campanulatus, bilabiatus; labia integra* post anthesin clausa, demum usque ad basin fissa, superius supra squama dilatata supra concava auctum, ad maturationem deciduum, inferius persistens. Co-

* Nempe sepalo supremo excluso (ut in *Lavandulis*, *Ocymisque* nonnullis), squamam formante, 2 lateralibus in labio superiore, 2 inferioribus in labio inferiore coalitis.

rolla tubo longe exserto, intus nudo, recto vel sæpius extra calycem recurvo-adscendente, superne in faucem dilatato, limbo bilabiato, labio superiore apice integro vel emarginato, inferiore patenti-dilatato convexo apice emarginato, lobis lateralibus nunc liberis patentibus, sæpius cum labio superiore coalitis, rarissime cum inferiore. Stamina 4, sub galea adscendentia, didynama, inferioribus longioribus. Antheræ per paria approximatae, ciliatae, staminum inferiorum dimidiatae, superiorum biloculares, cordatae, loculis subdivaricatis, dorso oppositis. Styli lobus superior brevissimus, inferior apice stigmatifer. Ovarium gynophoro incurvo elevatum, obliquum. Achenia sicca, nuda, tuberculosa, glabra vel tomento adpresso pubescentia. — Herbæ annuæ vel perennes, vel rarius frutices. Inflorescentia nunc tetragono-spicata, foliis floralibus membranaceis subimbricatis coloratis, nunc racemosa, foliis floralibus parvis, nunc axillaris, foliis floralibus caulinis subconformibus. Pedunculi in axillis solitarii, uniflori, breves, sæpius oppositi, at in *Heteranthesia* cum foliis floralibus sparsi! Bracteæ subnullæ. Corollæ cœruleæ vel flavidæ, rarius purpurascentes vel coccineæ.

The *Scutellariæ* come from almost every part of the world excepting tropical and southern Africa. They form a very natural genus, very difficult in the circumscription of its species, as the chief characters are taken from the leaves and inflorescence. It is possible that the form of the limb of the corolla might afford better characters, could they be easily ascertained from dried specimens; but these parts are almost always more or less injured, so that I have been able to make very little use of them in my descriptions.

The different sections are separated merely by the inflorescences, and run so much into one another, that in my enumeration of the species, in the *Botanical Register* for May 1832, I had not thought it worth while to give them distinct names. I have, however, since met with Mr. Arth. Hamilton's monograph, published in Seringe's *Bulletin Botanique* for Feb. 1832; and, as he has there established sections corresponding to some of mine, I have adopted his names, and given others to the remaining divisions. Although this paper contains many good observations, it is to be regretted that the monograph of so difficult a genus should have been published by the author without having had opportunities of consulting the works where the American and Indian species had been described,—the consequence having been the adding so many useless names to the synonymy. The details given of the structure of the calyx correspond with the views I had communicated to M. Seringe on the occasion of my visit to Lyons in 1831.

CONSPECTUS SPECIERUM.

SECT. I. LUPULINARIA. *Folia floralia sæpius membranacea. Flores tetragono-spicati vel æqualiter subracemosi, nec secundi.*

Folia subtus incana, inciso-dentata vel pinnatifida.

Folia floralia membranacea, imbricata.

Corolla flava, 12-15 lin. longa . . .

1. S. ORIENTALIS.

Corolla purpurea, 8-10 lin. longa . . .

2. S. GRANDIFLORA.

Folia floralia subfoliacea, incana.

- Folia floralia integerrima . . . 3. S. FRUTICOSA.
 Folia floralia pinnatifida . . . 4. S. PINNATIFIDA.
 Folia utrinque subviridia vel vix crenata.
 Folia ovata, crenata . . . 5. S. ALPINA.
 Folia oblongo-linearia, subintegerrima.
 Folia caulina margine revoluta, subtus
 canescentia . . . 36. S. LINEARIS.
 Folia caulina plana, utrinque viridia . . . 37. S. VISCIDULA.

SECT. II. HETERANTHESIA. *Folia floralia parva, herbacea.*
Flores racemosi, secundi, omnes vel saltem superiores sparsi.

- Corolla coccinea vel incarnata.
 Folia glabra vel vix pubescentia.
 Folia grosse dentata.
 Corolla tenuis, calyce glabro octuplo
 longior . . . 6. S. LONGIFOLIA.
 Corolla calyce villosa quintuplo longior . . . 7. S. MULTIFLORA.
 Folia subintegerrima.
 Folia lato-ovata . . . 8. S. ATRIPLICIFOLIA.
 Folia oblonga . . . 9. S. COCCINEA.
 Folia supra hispidula, subtus tomentosa.
 Folia floralia lineari-lanceolata . . . 10. S. INCARNATA.
 Folia floralia ovata . . . 11. S. TUBIFLORA.
 Corolla cœrulescens.
 Caulis foliosus, foliis vix rugosis.
 Folia basi rotundato-truncata.
 Corolla pollicaris . . . 11. S. TUBIFLORA.
 Corolla 6-7 lin. longa . . . 12. S. ULIGINOSA.
 Corolla 4-5 lin. longa . . . 13. S. BREVIFLORA.
 Folia subtriangularia, basi subcordata.
 Corolla semipollicaris. Folia subglabra . . . 14. S. PURPURASCENS.
 Corolla 4 lin. longa. Folia hispidula . . . 15. S. AGRESTIS.
 Folia rugosa, ad basin caulis approximata . . . 16. S. DISCOLOR.

SECT. III. STACHYMACRIS. *Folia floralia herbacea, parva,*
caulinis difformia. Flores racemosi, secundi, oppositi.

- Folia ovata vel rotundata, infima basi truncata vel
 cordata.
 Folia floralia sessilia, vel calycibus breviora.
 Caules procumbentes vel humiles, vix pedales.
 Folia parva, subrotunda, utrinque villosa . . . 17. S. INDICA.
 Folia ovato-subrotunda vel deltoidea,
 tenuiter pubescentia, nec villosa nec
 hispidula . . . 18. S. COLEBROOKEANA.
 Folia ovata, supra hispidula . . . 19. S. VIOLACEA.
 Folia ovata, acuminata, subpubescentia.
 Caules elongati, procumbentes vel ad-
 scendentes . . . 22. S. GROSSA.
 Caules erecti, ultrapedales.
 Racemi paniculati. Folia oblonga . . . 31. S. CANESCENS.
 Racemi subsimplices. Folia lato-ovata.
 Folia floralia calyce longiora, caulina
 valde rugosa . . . 30. S. VERSICOLOR.
 Folia floralia calyce breviora, caulina
 parum rugosa.
 Corolla 11-12 lin. longa.
 Racemus villosus . . . 23. S. COLUMNÆ.
 Racemus subglaber . . . 24. S. TOURNEFORTI.
 Corolla 7-8 lin. longa . . . 25. S. COMMUTATA.
 Folia floralia petiolata, calyces æquantia vel su-
 perantia.

- Caules et folia glabra vel subvillosa.
 Corollæ purpureo-violaceæ. Racemus vix villosus 26. *S. PEREGRINA.*
 Corollæ albidæ. Racemus villosus 27. *S. ALBIDA.*
 Caules et folia hirsutissima.
 Folia rugosissima 29. *S. SALVIÆFOLIA.*
 Folia hirsutissima, parum rugosa 28. *S. HIRTA.*
 Folia ovato-oblonga, basi angustata, oblongo-lanceolata, aut linearia.
 Folia saltem inferiora dentata.
 Corollæ tubus tenuis vel vix dilatatus.
 Folia petiolata 20. *S. OBLONGA.*
 Folia subsessilia 21. *S. INCURVA.*
 Corollæ tubus dilatatus.
 Racemus simplex. Corollæ tubus a basi dilatatus 32. *S. SERRATA.*
 Racemus subramosus. Corollæ tubus basi attenuatus, faux valde dilatata.
 Folia omnia ovata, crenata 33. *S. PILOSA.*
 Folia superiora oblongo-lanceolata, integerrima 35. *S. INTEGRIFOLIA.*
 Folia integerrima.
 Caulis erectus, parce foliosus 35. *S. INTEGRIFOLIA.*
 Caulis basi decumbens, dense foliosus.
 Folia floralia lato-ovata. Corollæ ochroleucæ.
 Folia caulina margine revoluta, subtus canescentia 36. *S. LINEARIS.*
 Folia caulina plana, utrinque viridia 37. *S. VISCIDULA.*
 Folia floralia lanceolata. Corollæ cœruleæ 38. *S. MACRANTHA.*
 Species non satis nota 34. *S. VILLOSA.*

SECT. IV. GALERICULARIA. *Folia floralia herbacea, caulinis conformia vel gradatim minora. Flores axillares vel supremi subracemosi.*

- Corolla cœrulescens, purpurascens, vel albida.
 Folia omnia integerrima.
 Folia oblongo-lanceolata vel linearia.
 Folia oblongo-lanceolata. Caulis basi ramosus 40. *S. SCORDIFOLIA.*
 Folia oblongo-linearia. Caulis subsimplex 39. *S. ANGUSTIFOLIA.*
 Folia ovata.
 Folia basi late cordata 49. *S. PARVULA.*
 Folia basi rotundata.
 Rami laxi. Folia petiolata, remota 51. *S. ANTIRRHINOIDES.*
 Rami duri. Folia subsessilia approximata 50. *S. RESINOSA.*
 Folia saltem inferiora crenata vel basi hastata.
 Folia glabra vel tenuiter pubescentia.
 Folia oblongo-lanceolata vel linearia, basi angustata 40. *S. SCORDIFOLIA.*
 Folia caulina media ovato-lanceolata.
 Corolla plus 7 lin. longa.
 Folia basi hastato-lobata 42. *S. HASTIFOLIA.*
 Folia basi dentata nec hastata 41. *S. GALERICULATA.*
 Corolla vix 3-4 lin. longa.
 Caules subsimplices. Corolla 4 lin. longa 43. *S. RIVULARIS.*

- Caules ramosi. Corolla vix 3 lin. longa.
 Folia infima et ramorum sterili-
 um late hastato-cordata,
 suprema anguste lanceolata 44. *S. RUMICIFOLIA*.
 Folia infima vix hastata, su-
 prema lanceolata . . . 45. *S. MINOR*.
 Folia omnia ovata.
 Corolla plus 7 lin. longa . . . 46. *S. HAVANENSIS*.
 Corolla vix 4 lin. longa.
 Caules ramosi. Folia minute vel
 inciso-crenata.
 Folia basi subhastato-cordata . 48. *S. HUMILIS*.
 Folia infima basi vix cordata,
 superiora basi rotundata . 47. *S. MICROPHYLLA*.
 Caules subsimplices. Folia serrato-
 crenata . . . 52. *S. NERVOSA*.
 Folia utrinque villosa.
 Corolla 3-4-linearis.
 Caulis subpedalis, villosus.
 Folia grosse crenata, basi late
 cordata . . . 54. *S. MOLLIS*.
 Folia leviter crenata, basi sub-
 cuneata . . . 53. *S. DRUMMONDII*.
 Caulis vix 3-4-pollicaris, pubescens 47. *S. MICROPHYLLA*.
 Corolla 6-8-linearis.
 Caulis elongatus . . . 56. *S. CÆRULEA*.
 Caulis vix 2-3-pollicaris. Radix tu-
 berosa . . . 55. *S. TUBEROSA*.
 Corolla coccinea . . . 57. *S. MOCINIANA*.
 Species 58-60 Humboldtianæ non satis notæ.

SECT. V. MASCHALOSTACHYS. *Folia floralia herbacea, infima caulinis conformia. Flores oppositi secundi, plerumque in racemis axillaribus terminalibusque dispositi.*

- Folia et caulis cano-pubescentia, viscosa . . . 61. *S. REPENS*.
 Folia et caulis glabra.
 Corollæ villosæ, 7-8 lin. longæ . . . 62. *S. SCANDENS*.
 Corollæ glabræ, vix 2 lin. longæ . . . 63. *S. LATERIFLORA*.

SECTIO I. LUPULINARIA.

Lupulinaria. *Arth. Hamilt. Monogr.* 11.

§ 1. Spicatae. *Benth. in. Bot. Reg.* 18. ad calc. n. 1493.

Folia floralia sæpius membranacea. Flores tetragono-spicati vel subracemosi vix secundi.

1. *S. ORIENTALIS* (Linn. Spec. 834), caule procumbente, foliis petiolatis ovatis inciso-dentatis pinnatifidisve subtus incanis, floralibus membranaceis integerrimis subimbricatis, spicis tetragonis oblongis.

S. orientalis. *Sibth. et Sm. ! Fl. Gr.* 6. 64. t. 580. *Reichb. Icon. Bot. Eur.* 1. 10. t. 8. f. 17.

S. Sieversii. *Bunge ! in Ledeb. Fl. Alt.* 2. 394. *Ledeb. Ic. Fl. Ross. Alt.* t. 123.

S. caucasica. *Arth. Hamilt. Mon.* 14.

β *pinnatifida* (Linn. *Reichb. Icon. Bot. Eur.* 1. 10. t. 8. f. 16.), foliis minoribus profunde pinnatifidis.

Hab. in Europæ austro-orientalis et Asiæ mediæ rupibus et montibus præsertim calcareis: in Croatia calidiore non procul a Senia *Host*, in Olympo Bithyno *Sibthorp*! in Oriente *Tournefort*! Syria prope Aleppo *Russell*! Persiæ provincia Azarbaidjan *Belanger*! Armenia circa Tiflin *Willdenow*, Tauria! et Caucaso! frequens in jugo Altaico *Bunge*! et in jugi Himalayani montibus Kanaourensibus *Royle*! α præsertim in montibus Asiaticis; β in calidioribus Mediterraneis. (*h. s. sp.*).

Caules basi perennes, ramosissimi, radicanes, repentes. Rami adscendentes, obtuse tetragoni, tenuiter cano-tomentosi. Folia 8-10 lin. longa, obtusa, basi cuneato-truncata, margine profunde regulariter dentata, subpinnatifida, supra viridia, tenuissime pubescentia, subtus tomento tenui candida. Racemus spiciformis 2-3-pollicaris, terminalis, simplex. Folia floralia sessilia, lato-ovata, acuminate, integerrima, uti rhachis plus minusve pubescentia. Calyx breviter pedicellatus, declinatus, pubescens, squama per anthesin tubo æquali, post anthesin subduplo longiore. Corolla flava, 12-15 lin. longa, extus tenuiter pubescens. Tubus basi recurvus, adscendens, fauce subdilatata, labio superiore falcato-galeato, lobo medio integerrimo, lateralibus erectis subpatentibus, infimo palatiformi. Staminum inferiorum antheræ uniloculares, lineari-oblongæ, barbatae, rudimento loculi alterius subnullo. Stamina superiora paullo breviora, filamentis decurrentibus, antheris sagittatis, loculis oppositis vix barbatis. Styli lobus inferior acutus, stigmate terminali minuto, superior brevissimus obtusus. Achenia oblongo-triquetra, nigra, cano-tomentosa.

The floral leaves vary much in size: in the Caucasian specimens they are particularly large and membranaceous, in those from the Levant they are scarcely larger than the calyx, and much less membranaceous; but among the number of specimens I have seen, I cannot find any differences decided enough to be considered as specific characters.

2. *S. GRANDIFLORA* (Sims. Bot. Mag. 17. t. 635), caule procumbente, foliis petiolatis ovato-subrotundis inciso-dentatis subtus vel utrinque canis molliter tomentosis, floralibus integerrimis submembranaceis imbricatis, spicis tetragonis oblongis.

S. pulchella. *Bunge*! *Enum. Crit. Pl. Alt. ined.*

Hab. in Alpibus Altaicis: in asperis lapidosis ad flumen Tshuja *Bunge*! (*h. s. sp. comm. a cl. Bunge.*)

S. orientali affinis, sed habitu et foliis distincta. Rami tenelli, glabriusculi. Folia duplo triplove minora quam in *S. orientali*. Limbus petiolo brevior, basi truncatus, apice obtusus, margine crenaturis vel lobis obtusis utrinque 2-4, utrinque pallide virentia et tomentosa, vel infra incana. Spicæ graciles demum sesquipollicares. Folia floralia subvirentia, membranacea, pubescentia. Pedicelli secus axin erecti. Calyx folio florali obtectus nutans. Corollæ dimidio minores quam in *S. orientali*, purpurascens.

3.? *S. FRUTICOSA* (Desf. Cat. Hort. Par. 63.?*), caule suffruticoso, ramis adscendentibus incano-tomentosis lanatisve, foliis breviter petiolatis ovatis cordatis inciso-crenatis incano-tomentosis, floralibus ovatis integerrimis rugosis incanis sublanatis, floribus oppositis subsecundis (?) racemosis.

Hab. in Syria prope Aleppo *Russell*? in Persia *Persoon*? (*v. s. sp. in herb. Banks.*)

* "*S. foliis cordatis rugosis tomentoso-incanis, caule fruticoso.*

"*Pedalis. Flores spicati. Corolla flavescens? tubo longissimo tenui.*"—*Pers. l. c.*

Caules basi sublignosi, plurimi, adscendentes, subramosi, in parte superiore albo-lanati. Folia fere *S. orientalis*, supra rugosa, subtus candidissima. Racemi elongati, laxi. Folia floralia sessilia, calyce vix longiora. Calyces subsessiles, cano-villosi, sublanati. Corollæ magnitudine *S. orientalis*, tubo flavo, labiis cœrulescentibus? Species distinctissima, etsi *S. orientali* affinis: an huc referenda vel inter *Strachymacrides* prope *S. linearem* amandenda?

4. ? *S. PINNATIFIDA* (Arth. Hamilt. Monogr. 16. t. 2. f. 2).

Hab. in Oriente inter Kermancha et Amadan Olivier (Arth. Hamilton.)

"*S. tota pilosa, foliis ovatis concoloribus petiolatis pilosis pinnatifidis, lobis oblongis obtusis, floribus in spica laxè imbricatis, bracteis ovatis dentatis subfoliaceis.*

"Differt a *S. orientali* floribus paullo majoribus, bracteis pinnatifidis, et foliis profunde incisis utrinque lanatis."—Arth. Hamilt. l. c.

5. *S. ALPINA* (Linn. Spec. 834), caule procumbente, foliis subsessilibus vel breviter petiolatis ovatis serrato-crenatis concoloribus, floralibus membranaceis imbricatis, spicis tetragonis spicatis.

S. alpina. All. Fl. Ped. 142. t. 26. f. 3. Waldst. et Kit. Pl. Rar. 2. 146. t. 137. Sw. Brit. Fl. Gard. 1. t. 90. Bot. Reg. 17. t. 1460.

S. altaica. Fisch. Cat. Hort. Gar. 39. Sw. Brit. Fl. Gard. 1. t. 45.

S. variegata. Spr. fil. ! Tentamen.

Scutellaria, &c. Gmel. Fl. Sib. 3. 229. n. 52. t. 48.

β floribus flavis.

S. lupulina. Linn. ! Willd. Spec. Pl. 3. 172. Schmid. Ic. t. 73. Bot. Reg. 18. t. 1493.

S. verna. Besser Prim. Fl. Gal. p. ii. 43.

Hab. in Europæ et Asiæ mediæ montibus: in Pyrenæis editioribus! in Alpibus Helveticis! in Italia superiore! Calabria *Tenore*, Croatia *Host*, Galicia *Besser*, in Siberia omni temperata et alpibus Altaicis frequentissima *Pallas*! *Bunge*! &c. (v. v. et h. s. sp.)

Habitus *S. orientalis*. Rami acute tetragoni, pilosi vel pubescentes, virides. Folia magnitudine foliorum *S. orientalis*, sed petiolus brevis vel nullus; limbus basi rotundatus vel cordatus, acutiusculus, leviter serrato-crenatus, utrinque viridis, pubescens vel pilosus. Folia floralia ut in *S. orientali* colorata, pilosa. Flores *S. orientalis*. Corollæ 12-15 lineares, nunc omnino purpureæ, nunc tubo vel labio inferiore flavo, nunc in var. β omnino flavæ. Variat etiam hæc species caule foliisque plus minusve pilosis, foliis floralibus plus minusve coloratis, foliis latioribus angustioribusve, sed variationibus diverso modo in diversis conjunctis non ut species distinguenda.

SECTIO II. HETERANTHESIA.

§ 2. Racemosæ.* Floribus sparsis. Benth. in Bot. Reg. l. c.

Folia floralia parva, herbacea. Flores racemosi secundi, omnes vel saltem superiores sparsi nec oppositi.

6. *S. LONGIFOLIA* (Benth. in Bot. Reg. 18. ad calc. n. 1493), glabra, caule erecto, foliis petiolatis ovato-lanceolatis acuminatis remote dentatis basi rotundato-cuneatis, floralibus linearibus minutis deciduis, racemis elongatis subramosis, floribus secundis sparsis, corollis calyce glabro octuplo longioribus.

Hab. in Nova Hispania. (*v. s. sp. in herb. Lambert*).

Rami ultrapedales, erecti. Folia tripollicaria, utrinque glaberrima et lævia, subtus parum venosa, margine grosse dentata. Racemi in specimine suppetente tres semipedales. Corollæ coccineæ pubescentes, plus pollice longæ, basi longe attenuatæ, apice parum dilatatæ, labiis brevibus erectis, superiore longiore.

7. *S. MULTIFLORA* (Benth. in Bot. Reg. 18. ad calc. n. 1493), caule erecto tenuiter pubescente, foliis petiolatis ovatis acuminatis obtuse sinuato-dentatis basi rotundato-truncatis, floralibus lanceolato-linearibus calyce sublongioribus, racemis elongatis simplicibus, floribus secundis sparsis, corollis calyce villosa quintuplo longioribus.

Hab. in Nova Hispania *Moçino et Sessé!* (*v. s. sp. in herb. Lambert.*)

Caules subramosi, tomento tenui pubescentes. Folia *S. longifoliæ* latiora, floralia persistentia. Spica semipedalis. Flores nunc alterni, sæpius plures in pseudo-verticillis glomerati. Corolla purpurea? 10-11 lin. longa, incurva, villosa, tubo basi attenuato apice dilatato. Genitalia corollam æquantia.

8. *S. ATRIPLICIFOLIA* (Benth. in Bot. Reg. 18. ad calc. n. 1493), tenuiter cano-pubescent, foliis petiolatis lato-ovatis obtusiusculis subintegerrimis repandisve basi truncatis subcordatis subcarnosis, floralibus ovatis acuminatis calyce sublongioribus, racemis elongatis simplicibus, floribus secundis sparsis, corollis calyce subsextuplo longioribus.

Hab. in Peruvia? *Pavon!* (*h. s. sp. in herb. Lambert.*)

Exemplar unicum in herbario Lambertiano ex spica cum foliorum pari unico constat, sed speciatim distinctissimum, affine præcedentibus. Flores inferiores oppositi, superiores pseudo-verticillati. Folia floralia decidua. Corolla subpollicaris, fere recta, apice dilatata, subglabra.

9. *S. COCCINEA* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 325).

Hab. in America meridionali: in regno Novo Grantensi? *Humboldt et Bonpland.*)

“*S. foliis oblongis utrinque obtusis integerrimis glabris subtus violaceo-purpureis, spicis terminalibus.*

“*Radices fasciculatæ, teretes, subsimplices. Caulis erectus, ramosus, ramique tetragoni, tenuissime pubescentes. Folia petiolata, oblonga, utrinque integerrima, venosa, glabra, nervo medio venisque subtus prominentibus et puberulis, supra viridia, subtus violaceo-purpurea, rigidiuscula, subbipollicaria. Petioli 6-7 lin. longi, canaliculati, tenuissime pubescentes. Spicæ terminales, sesquipollicares. Flores sparsi, pedicellati, 7-9 lin. longi. Pedicelli pubescentes, basi bracteati. Bracteæ lanceolatæ, obtusæ, pubescentes, pedicellos subæquantes. Calyx generis, tenuissime pubescens. Corolla generis, coccinea, glabriuscula. Stamina et pistillum generis. Achenia 4 in fundo calycis persistentis valde aucti et clausi.*”—*Kunth. l. c.*

10. *S. INCARNATA* (Vent. Choix. Pl. 39. t. 39).

β minor, foliis lanceolato-ovatis.

Hab. in America meridionali prope Santa Fé de Bogota *Ventenat.*

“*S. foliis cordatis dentatis subtus tomentosis, spicis terminalibus secundis, bracteis lineari-lanceolatis, floribus incarnatis.*

“*Caules erecti, bipedales, pubescentes, ramosi, cinerei. Folia petiolata, ovata, cordiformia, 1-3 poll. longa, 1½ lata, dentata, supra pubescentia, subtus tomentosa, intense viridia, in var. β dimidio minora. Flores pulchre rubri. Bracteæ lineari-lanceolatæ, pedicellum æquantes. Calyx tubulosus, compressus, extus villosus,*

subinteger, squama concava post anthesin valde elongata. Corolla pubescens, calyce sextuplo longior, tubo basi attenuato. Limbus patens."—*Ventenat ex Poir. Dict. Suppl.* 5. 317.

11. *S. TUBIFLORA* (Benth. in Bot. Reg. 18. ad calc. n. 1493), caulibus adscendentibus ramosis pubescentibus, foliis petiolatis ovatis obtusis grosse crenatis basi rotundatis supra hispidulis subtus molliter pubescentibus, floralibus ovatis ante anthesin imbricatis, racemis simplicibus, floribus secundis sparsis, corollis calyce subsextuplo longioribus.

Hab. in Brasilia meridionali *Sello!* (v. s. sp. in herb. Mus. Reg. Berol.)

Herba multicaulis, ramis teretibus molliter pubescentibus. Petioli pollicares. Folia pollicem longa, $\frac{3}{4}$ lata, pubescentia subtus tenuissima molli, floralia majuscula. Corolla pollicaris, tubo tenui.

12. *S. ULIGINOSA* (St. Hil. MSS.), caulibus adscendentibus vel erectis ramosis pubescentibus, foliis petiolatis ovatis grosse crenatis basi rotundatis subcordatisve utrinque glabriusculis, floralibus parvis laxis, racemis simplicibus, floribus subsecundis sparsis, corollis calyce quintuplo longioribus.

Hab. in Brasilia: in sylvis uliginosis in Vargem dos Morretes, in provincia meridionali Sancti Pauli *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Caules herbacei, semipedales pedalesve, parum ramosi, ramis teretibus. Folia plerumque duplo majora quam in *S. tubiflora*, nunc glabra, nunc pilis raris in pagina superiore hispidula. Floralibus oblonga, calyce subbreviora, basi in petiolum angustata, etiam juniora laxa, glabra. Calyx fructifer, oblongus, appendicula magna. Corolla vix semipollicaris, cœrulea palato albo, fauce tenui.

13. *S. BREVIFLORA* (Benth. in Bot. Reg. 18. ad calc. n. 1493), glabra, caule erecto, foliis petiolatis ovatis acuminatis obtuse sinuato-dentatis basi rotundato-truncatis, floralibus lanceolato-linearibus calyce sublongioribus, racemis elongatis simplicibus laxis, floribus secundis sparsis, corollis calyce glabro subtriplo longioribus.

Hab. in Peruvia *Pavon!* (v. s. sp. in herb. Lambert.)

Inter *S. multifloram* et *uliginosam* fere media. Caulis ultrapedalis. Folia $1\frac{1}{2}$ -pollicaria, lato-ovata, tenuia, glaberrima vel pilis rarissimis supra hispidula. Corollæ glabræ, cœrulescentes, 4-5 lin. longæ, limbo patente.

14. *S. PURPURASCENS* (Sw.! Fl. Ind. Occid. 2. 1013), caule suberecto humili tenuiter pubescente vel glabriusculo, foliis petiolatis lato-ovatis obtusis sinuato-crenatis basi latissime truncatis rotundatis vel subcordatis supra hispidulis subtus vel utrinque glabris, floralibus minutis deciduis, racemo laxo, floribus secundis sparsis vel inferioribus oppositis, calycibus pedicello brevioribus, fructiferis magnis glabriusculis.

S. Felisberti. *Nees et Mart.!* in Nov. Act. Acad. Nat. Cur. 11. 77.

Hab. in America æquinoctiali: in Brasiliæ districtu Insulanorum provinciæ Bahiensis *Martius!* in Indiæ Occidentalis ins. Guadelupa *Ponthieu!* Sancti Vincentii et in Caraccas *Parker!* (v. s. sp. in herb. Vahl, Banks, &c.)

May 1834.

3 K

Herba tenuis flaccida, semipedalis, ramosa. Folia infima parva, lato-rotundata, media sesquipollicaria, obtuse subtriangularia, suprema minora, angustiora, omnia supra pilis raris hispidula, cæterum glaberrima. Racemus nunc sesquipollicaris, ex florum paribus 3 vel 4 sæpius constans, interdum 2-4-pollicaris, floribus 15-30, basi ramo uno alterove sæpius auctus. Folia floralia minutissima, linearia, per anthesin decidua, vel infima rarius caulinis subconformia, persistentia. Calyx glaber, fructifer minus auctus quam in affinibus. Corollæ semipollicares, tenues, galea angustata, lobis lateralibus eam æquantibus, infimo longiore convexo emarginato sinuato.

15. *S. AGRESTIS* (St. Hil. MSS.), caule suberecto tenuiter pubescente, foliis petiolatis ovato-subrotundis obtusis sinuato-crenatis basi cordatis supra hispidulis subtus glabriusculis, floralibus minutis subnullis, racemis brevibus simplicibus, floribus vix secundis sparsis.

Hab. in Brasilia: ad San Miguel da Jequitinhonha provinciæ Bahiensis *A. de St. Hilaire!* (v. s. sp. in herb. St. Hil.)

Herba basi ramosissima vix 4-6-pollicaris. Rami, petioli et nervi foliorum tomento tenuissimo canescentes. Folia $\frac{1}{2}$ -1-pollicaria, utrinque viridia, pagina superiore pilis longis sparsis hispida. Racemus 1-2-pollicaris. Calyx fructifer valde auctus, membranaceus. Corolla cœrulea, circiter 4 lineas longa. Ab affine *S. purpurascente* differt corollis minoribus, foliis hispidis, caulibus et racemo brevioribus, &c.

16. *S. DISCOLOR* (Colebr. ! in Wall. Pl. As. Rar. 1. 66), caule basi radicante folioso adscendente superne subnudo, foliis petiolatis ovatis obtusis crenatis basi rotundato-cuneatis, inferioribus cordatis, floralibus minutis, racemis elongatis basi subramosis, floribus secundis sparsis.

S. indica. Don ! *Prod. Fl. Nep.* 109. non Linn.

Hab. in India Orientali: in montibus Napaliæ et Silhet *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caules cum racemo 1-1 $\frac{1}{2}$ -pedales, basi foliosi, superne sæpius subnudi. Folia 1 $\frac{1}{2}$ -2-pollicaria, sæpius ad basin caulis approximata, rarius secus caulem elongatum disposita, infima et interdum omnia cordata, superiora rarius basi cuneata vel angustata, utrinque tenuissime pubescentia, subtus nervosa sæpius purpurascentia. Racemus subnudus, semipollicaris vel ultra, flores numerosi breviter pedicellati. Calyx floriger parvus, pubescens, squama vix labium superius excedente, fructifer membranaceus, auctus, squama concava. Corolla extus vix pubescens, tenuis, circiter 8 lin. longa. Antheræ breviter barbatae. Glandula ovarii parva. Achenia tuberculoso-hispida.

SECTIO III. STACHYMACRIS.

Stachymacris. Arth. Hamilt. Monogr. 17.

§ 2. Racemosæ, ** floribus oppositis. Benth. in Bot. Reg. l. c.

Folia floralia herbacea, parva, caulinis difformia. Flores racemosi, secundi, oppositi.

17. *S. INDICA* (Linn. ! Spec. 833. non Don), caule basi procumbente, ramis adscendentibus villosis, foliis parvis petiolatis rotundatis crenatis basi cordatis utrinque molliter pubescentibus, floralibus minutis, racemo subsimplici denso, floribus oppositis secundis, calycibus floriferis pubescentibus pedicello brevioribus, corollæ labio inferiore latissimo.

Hab. in China prope Macao *Sir G. Staunton ! Vachel !* in Japonia *Thunberg !* in Java ad sepes circa Tugu provinciæ Buitenzorg *Blume.* (*h. s. sp. comm. a cl. Henslow.*)

Rami semipedales vel vix pedales, tetragoni, pilis patentibus villosi. Folia vix semipollicaria, forma fere *Glechomæ hederaceæ*. Racemus densior quam in *S. violacea*, 3-4-pollicaris. Squama calycis fructiferi valde aucta, membranacea. Corolla glabriuscula, 6-7 lin. longa, superne ampliata. Antheræ staminum superiorum vix barbatae.

18. *S. COLEBROOKIANA* (Wall. ! Pl. As. Rar. 1. 67), caule erecto ramoso tenuiter pubescente, foliis petiolatis ovato-rotundatis obtusis crenatis, infimis basi cordatis, superioribus deltoideis basi rotundato-truncatis, omnibus utrinque tenuiter pubescentibus, floralibus minutis, racemo simplici laxo, floribus oppositis secundis, calycibus florigeris pedicello brevioribus pubescentibus, fructiferis auctis glabris, corollæ labio inferiore latissimo.

Hab. in Indiæ orientalis Peninsula *Heyne !* (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *S. violaceæ*, sed caule firmiore ramosiore et foliorum forma diversa. Folia vix pollicaria, crassiuscula, mollia, utrinque tenuiter et brevissime pubescentia, nec hispidula.

19. *S. VIOLACEA* (Heyne; Wall. ! Pl. As. Rar. 1. 66), caule erecto vel adscendente pubescente, foliis petiolatis cordato-ovatis crenatis supra hispidulis subtus pubescentibus glabrisve, floralibus sessilibus ovatis pedicello brevioribus, racemo laxo subsimplici, floribus oppositis secundis.

S. indica. *Roxb. Hort. Beng. 45. non Linn.*

β hispidior.

S. Wightiana. *Benth. in Wall. Pl. As. Rar. 1. 67.*

S. nodulosa. *Arth. Hamilt. Monogr. 26. ?*

Hab. in Indiæ orientalis Peninsula *Heyne ! Wight ! &c.*, et in Ceylona *Macrae ! Heyne !* (*h. s. sp. e Mus. Angl. Ind., et comm. a cl. Wight.*)

Herba semipedalis vel fere pedalis, subramosa, hispida, pubescens, vel rarius glabriuscula, habitu *S. purpurascens* valde affinis, sed foliis racemisque distincta. Folia sæpius exacte cordiformia vel parum elongata, rarius superiora basi rotundata, 1-1½-pollicaria, utrinque viridia, tenuia vel parum rugosa, supra pilis brevibus sparsis plus minusve hispidula, subtus præsertim ad nervos pubescentia vel hispida, rarius fere glabra. Racemus 4-5-pollicaris, gracilis, laxis, rarius basi ramis 1-2 auctus. Folia floralia pedicello plerumque dimidio breviora vel infima parum longiora. Calyx floriger pubescens, fructifer valde auctus. Corolla semipollicaris, labio inferiore longitudine fere tubi latissimo convexo. Genitalia labio superiore inclusa. Achenia valde tuberculosa, at non hispida.

20. *S. OBLONGA* (Benth. in Bot. Reg. 18. ad calc. n. 1493), caule adscendente pubescente, foliis petiolatis oblongo-ellipticis acutiusculis apice subserratis basi rotundatis integerrimis glabriusculis, floralibus ovatis minutis, racemo laxo simplici, floribus oppositis secundis, calycibus pedicellum æquantibus, fructiferis maximis glabriusculis, corollæ labio inferiore latissimo.

Hab. in Ceylona *Macrae !* (*v. s. sp. in herb. Lindl.*)

S. violaceæ maxime affinis quoad staturam, inflorescentiam, et flores, sed distincta foliis, quæ vix pollicem longa et lineas 4-5 lata, oblongo-elliptica nec lato-ovata, apice vix serrata nec crenata, basi rotundata nec cordata. Caulis basi subprocumbens videtur.

21. *S. INCURVA* (Wall.! Pl. As. Rar. 1. 67), caule adscendente ramoso pubescente, foliis subsessilibus oblongo-ellipticis acutis remote serratis glabriusculis, floralibus minutis, racemis terminalibus simplicibus, floribus oppositis secundis, pedicellis calyce triplo longioribus, corollarum tubo gracili incurvo, labiis profunde fissis, superiore amplo cucullato, inferiore brevior.

Hab. in India orientali: ad Taong Dong montem Avensem *Wallich!* (*h. s. sp. in herb. Mus. Angl. Ind.*)

Species distinctissima, sed specimen unicum in herbario Wallichiano imperfectum.

22. *S. GROSSA* (Wall.! Pl. As. Rar. 1. 67), caule basi procumbente, ramis adscendentibus villosis, foliis petiolatis ovatis acuminatis crenatis basi rotundato-truncatis glabriusculis, floralibus petiolatis, infimis caulinis subconformibus, supremis vix calycem excedentibus, racemis laxis simplicibus, floribus oppositis secundis, corollis elongatis tenuibus.

Hab. in Indiæ orientalis montibus Kamaonensibus *Wallich*, in montibus Syen *Royle!* ad Simlah *Lady Dalhousie!* (*h. s. sp. e Mus. Angl. Ind., et comm. a cl. Royle.*)

Caules basi sublignosi. Rami obtuse tetragoni, pilis brevibus adpressis pubescentes. Folia 1-1½-pollicaria, supra et subtus ad nervos tenuiter pubescentia, acutiuscula. Racemi breves laxi. Corolla 9 lin. longa, vix pubescens, tubo tenui, fauce vix dilatata, labiis oblongis erectis, superiore galeato lobis lateralibus minutis, inferiore convexo.

23. *S. COLUMNÆ* (All. Fl. Ped. 1. 40. t. 84. f. 2), caule erecto ramoso pubescente, foliis petiolatis ovatis crenatis basi lato-cordatis truncatisve vix rugosis tenuiter pubescentibus, floralibus ovatis calyce fructifero brevioribus, racemo elongato laxo subramoso piloso, floribus oppositis secundis, pedicellis calyce fructifero maximo piloso brevioribus, corollis calyce sextuplo longioribus.

S. Columnæ. Sw. Br. Fl. Gard. 1. t. 52.

S. peregrina. Sibth. et Sm. Fl. Gr. 6. 66. t. 582.* non Linn.

S. altissima. Arth. Hamilt. Monogr. 18. et Auct. plur. an Linn.?

Cassida racemosa. Mœnch. Meth. 414.?

S. pallida. Guss. Fl. Sic. Prodr. 2. 137.? non Bieb.

Hab. in Europæ australioris agris sylvaticis: ad Vincennes prope Parisios, an spontanea? *Requien!* in Sicilia septentrionali *Gussone*, in Italia a Pedemonte *Allioni*, ad regnum Neapolitanum *Tenore*, in ins. Cypro et ad Byzantium *Sibthorp!* in Hungaria rarissime *Lang!* Banatu et Dalmatia *Host.* (*h. s. c. et v. s. sp.*)

* Sibthorp's herbarium, as left by Sir J. E. Smith, contains in the sheets marked *S. peregrina*, *S. albida*, and *S. hirta*, a number of bits belonging chiefly to *S. albida*, some to the true *S. peregrina*, and a very small piece of *S. hirta*; but the specimens are so bad, that I have only taken the synonymy of the *Flora Græca* from the beautiful plates of that work.

Caulis 2-3-pedalis, acute tetragonus, pilis brevibus sursum tendentibus pubescens. Folia inferiora latitudine longitudinem fere æquantia, 2-pollicaria, basi profunde et late cordata, tenuia, subtus nervosa, utrinque tenuiter pubescentia, superiora sæpe angustiora, acutiora, et basi truncata, in petiolum subdecurrentia. Racemi semipedales et ultra, simplices vel utrinque ramo aucti, pilis longis patentibus subglandulosis hispidi. Folia floralia ovata vel ovato-lanceolata, acuminata, basi angustata, integerrima, herbacea, pilosa, subviscosa, calyce sæpius dimidio breviora, inferiora rarius ei æqualia. Pedicelli etiam calyce florifero breviores. Calyces fructiferi maximi, pilosi. Corolla (atropurpurea) fere pollicaris, extus leviter pubescens, tubo basi angustato, fauce dilatata. Achenia tuberculoso-hispida.

24. *S. TOURNEFORTI* (Benth. in Bot. Reg. 18. ad calc. n. 1493), glaberrima, caule erecto ramoso, foliis petiolatis ovatis vel ovato-lanceolatis grosse crenatis infimis basi late subcordatis, superioribus rotundato-truncatis, floralibus ovato-lanceolatis calyce fructifero subbrevioribus, racemo elongato laxo glabro, floribus oppositis secundis, calycibus pedicello longioribus fructiferis maximis glabris, corollis calyce sextuplo longioribus.

Hab. in Persia *Tournefort!* ad mare Caspicum prope Lenkoran *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer, et v. s. sp. in herb. Lambert a Tournefortio ad Pallas comm.*)

S. commutata maxime affinis, differt foliis rarius cordatis et corollis duplo majoribus glabris.

25. *S. COMMUTATA* (Guss. Prodr. Fl. Sicul. 2. 136), caule erecto ramoso glabriusculo, foliis petiolatis ovatis vel ovato-lanceolatis crenatis basi lato-cordatis vix rugosis glabris, floralibus ovatis calyce fructifero subbrevioribus, racemo elongato laxo subramoso glabro, floribus oppositis secundis, calycibus pedicello longioribus fructiferis maximis glabris, corollis calyce quadruplo longioribus.

S. peregrina. *Waldst. et Kit. Pl. Rar. Hung. 2. 154. t. 125. non Linn.*

S. altissima. *Linn. Spec. 836. ? Benth. in Bot. Reg. 18. ad calc. n. 1493., et Auct. plur.*

Hab. in Europæ austro-orientalis et Asiæ mediæ herbidis nemorosis: in Hungaria *Lang!* Dalmatia *Host*, Tauria et omni Caucaso vulgaris *Bieberstein, Pallas!* &c. (*h. s. c. et v. s. sp.*)

S. Columnæ affinis, sed distincta glabritie et corollis duplo fere minoribus.

There are three plants more or less common in herbaria under the names of *S. altissima* and *peregrina*, which are indiscriminately given to all three. The one, the *S. Columnæ* of Allioni, is easily distinguished by its hairy raceme and flowers about 11 lines long; the second, for which, on account of the confused synonymy, I have adopted Gussone's name of *S. commutata*, is almost entirely glabrous, and the flowers seldom exceed 7 lines in length; the third, which I have published as *S. Tourneforti*, has the leaves less cordate at the base than either of the other two, and is glabrous like the *S. commutata*, but with the large flowers of *S. Columnæ*. As Linnæus's phrase mentions none of these characters, and as his herbarium contains no specimen, it is impossible to say to which plant he gave the name of *S. altissima*. From a specimen of Tournefort's I had considered the small-flowered plant to be the true *S. altissima*; but as the *S. Tourneforti* was also gathered by Tournefort in Persia, (which country is by the older botanists included in the general habitat "in Oriente,") I have thought it safer to omit altogether the name of *altissima*, and take up that of *commutata*, published, as above, by Gussone, in his excellent *Prodromus* of the Sicilian Flora.

26. *S. PEREGRINA* (Linn. ! Spec. 836), caule procumbente, ramis

elongatis glabris vel apice pubescentibus, foliis petiolatis ovatis obtusis crenatis basi rotundato-truncatis glabris, floralibus bractæformibus petiolatis ovato-oblongis utrinque acutis integerrimis pubescentibus, racemis elongatis laxis, floribus subsessilibus oppositis secundis, calycibus maximis pilosiusculis, corollis extus pubescentibus.

S. rubicunda. *Hornem. ! Hort. Hafn. Spreng. Syst. 2. 702.*

Hab. in Tauria *Steven*, in Sicilia *Gussone*. (*h. s. c. e sem. a cl. Steven. e Tauria miss.*)

Caules et folia sæpius glabri, atropurpurascens vel rubicundi. Folia subtus pallida. Racemi longissimi, tenuis, verticillastris fere pollicem distantibus. Folia floralia vix calycem fructiferum superantia, infima glabra, suprema subvillosa. Calyces supremi pilosi. Corolla violacea, vix 5 lineas longa.

This plant is now common in gardens under Hornemann's name, which, I believe, he had from Steven : I have never seen it wild. All the Italian specimens under that name in different herbaria have proved to be the *S. Columnæ* ; but Gussone's description evidently belongs to the true *S. peregrina*.

27. *S. ALBIDA* (Linn. ! Mant. 248), ramis divaricatis pubescentibus, foliis petiolatis lato-ovatis obtusis crenatis basi rotundato-truncatis vel infimis cordatis tenuiter pubescentibus, floralibus petiolatis ovato-oblongis utrinque acutis integerrimis pilosis calyces superantibus, racemis elongatis laxis, floribus subsessilibus oppositis secundis, calycibus pilosissimis, corollis extus villosis.

S. albida. *Arth. Hamilt. Monogr. 21. t. 1. Sibth. et Sm. ! Fl. Gr. 6. 65. t. 581.*

S. cretica. *Mill. Dict. et Hortul.*

S. nigrescens. *Spr. Syst. 2. 702 ? **

S. pallida. *Bieb. Fl. Taur.-Cauc. 2. 65. non Guss.*

Hab. in Europæ austro-orientalis et Asiæ mediæ sylvis montosis : in Olympo Bithyno et ad Byzantium *Sibthorp !* in Creta *Tournefort !* in Monte Libano et prope Heliopolim *N. Bové !* Tauria meridionali *Bieberstein ;* in Siberia ad Tomum fluvium *Gmelin. (h. s. sp.)*

Rami elongati, crassi, tetragoni, pubescentes. Folia sesquipollicaria, grosse crenata, basi sæpius subinæqualiter rotundata, inferiora interdum glabriuscula, superiora villosula. Racemi sæpe ultrapedales, rhachi villosa. Folia floralia cum petiolo $\frac{1}{2}$ -1-pollicaria. Corollæ semipollicares, sordide albæ.

28. *S. HIRTA* (Sibth. et Sm. ! Fl. Gr. 6. 66. t. 583), hirsutissima, foliis petiolatis ovatis obtusis crenatis basi rotundato-truncatis cordatisve utrinque hirsutis vix rugosis, floralibus petiolatis oblongis calycem subæquantibus, racemis laxis, floribus subsessilibus oppositis secundis, calycibus fructiferis inflatis pilosissimis, corollis extus villosis.

S. decumbens. *Sieb. ex Spreng. Syst. 2. 702.*

S. utriculata. *Labill. Ic. Pl. Syr. Rar. 4. 11. t. 6.*

Hab. in Creta *Sibthorp !* in Libano *Labillardière. (v. s. sp. in herb. Sibthorp.)*

Caules vix pedales, ramosi. Folia minora quam in *S. peregrina*, obtusiora quam in *S. salviaefolia*, nec ut in hac rugosa. Corolla fere *S. Columnæ*. Calyx fructifer valde auctus squama magna.

* "*S. racemis spicatis secundis, bracteis subsessilibus oblongis calyces villosissimos superantibus, foliis cordato-ovatis crenatis subtus ramisque canescentibus.*"
— *Spreng. l. c.*

In Labillardière's figure, the dissections of the calyx (Nos. 3 and 6), are surely incorrect, as, from Sibthorp's specimen, and [the remainder of Labillardière's figure, it is evident that a great part of the apparently inflate calyx consists of the recurved squama.

29. *S. SALVIÆFOLIA*, caulibus adscendentibus hispidis, foliis petiolatis ovatis basi subcordatis rugosissimis hispidis, floralibus bractæformibus petiolatis oblongis rugosis calyces subæquantibus, racemis laxis, floribus oppositis secundis, calycibus villosis.

Hab. in Græcia *Sibthorp!* (v. s. sp. in herb. *Sibthorp.*)

Species a cl. Smith omissa et innominata at distinctissima, caules numerosi, duri, adscendentes, vix semipedales. Folia fere *Teucris Scorodonii*, more *Salviarum* rugosissima, inferiora longe superiora breviter petiolata. Racemus brevis pauciflorus. Calyces pedicellum subæquantes, squama magna. Corolla pubescens, magnitudine *S. peregrinæ* vel paullo major.

30. *S. VERSICOLOR* (Nutt.! Gen. N. Am. 2. 38), caule erecto ramoso pubescente, foliis petiolatis lato-ovatis crenatis basi profunde cordatis utrinque pubescentibus rugosis, floralibus sessilibus lato-ovatis integerrimis calyce sublongioribus, racemo simplici vel subramoso elongato multifloro, floribus oppositis subsecundis, calycibus hirsutis.

S. cordifolia. *Muhlenb. Cat.*

β *bracteata.*

Hab. in America boreali: in planitiibus et sylvis apertis in Ohio et Arkansas *Nuttall!* ad Lexington provinciæ Kentucky *Torrey!* ad Novum Aurelianum *Drummond!* β ad Rio Brazos provinciæ Texas Mexicanorum *Drummond!* (h. s. sp.)

Tota planta pilis (in racemo viscidis) pubescens. Caules elati, acute tetragoni. Folia subtus nervosissima, in specimine meo vix 2-pollicaria, petiolo ultra pollicari et utrinque pubescentia, sec. Nuttall 3-4-pollicaria, fere glabra. Racemus 3-5-pollicaris. Folia floralia subimbricata, acuta, integerrima, nervosa, herbacea. Calyx ample campanulatus, squama labium superius non excedente. Corolla extus pubescens, tubo elongato tenui, fauce dilatata cœrulea, labio inferiore albo, sec. Nuttall. Antheræ vix barbatae. A *S. Columnæ* abunde diversa foliis, racemis, et habitu. Var. β non nisi foliis floralibus majoribus subcoloratis differt.

31. *S. CANESCENS* (Nutt. Gen. 2. 38?), caule elato ramoso pubescente, foliis petiolatis ovatis vel ovato-lanceolatis acutis crenatis basi angustatis rotundatis vel infimis cordatis utrinque pubescentibus subtus incanis, floralibus oblongis calyces superantibus, racemis laxis paniculatis canescentibus, floribus oppositis secundis, calycibus cano-tomentosis, corollis extus pubescentibus.

S. serrata. *Spr. Syst.* 2. 703. et *Auct. plur. non Andr.*

S. pubescens. *Muhlenb. Cat.?*

S. incana. *Spr. in Steud. Nom. Bot.* 757?

Hab. in America boreali: in Canada *Herb. Hooker!* in sylvis apertis ad Ohio *Nuttall, Drummond! Bartram!* prope Lexington in Kentucky *Torrey!* in Louisiana superiore *Herb. Lambert!* (h. s. sp.)

Herba erecta, pluripedalis, ramis obtuse tetragonis pubescentia molli canescentibus. Folia 2-3-pollicaria, supra viridiora, subtus pallida canescentia. Panicula ampla, striata, multiflora. Calyces breviter pedicellati. Corollæ cœruleæ, 8-9 lin. longæ, tubo basi parum attenuato, fauce subdilatata, galea elongata incurva, lobis lateralibus brevibus ovatis, infimo latissimo convexo galea brevior.

32. *S. SERRATA* (Andr.! Bot. Rep. t. 494), caule elato ramoso

glabro, foliis petiolatis ovatis acutiusculis crenato-serratis basi cuneatis integerrimis utrinque glabriusculis, floralibus oblongo-lanceolatis supremis pedicello vix longioribus, racemis laxis subsimplicibus, floribus oppositis secundis, calycibus strigoso-pubescentibus, corollis amplis extus pubescentibus.

Hab. in America boreali *Andrews!** *Bartram!* *Schweinitz!* prope Fredericstown *Herb. Monac.!* (v. s. sp. in herb. *Lambert, Banks, Torrey, et Mus. Reg. Berol.*)

Herba erecta, pluripedalis, ramis obtuse tetragonis, glaberrimis vel superne tenuissime pubescentibus. Folia utrinque viridia, supra subpurpurascentia, subtus pallidiora sed minime canescentia, in petiolum subdecurrentia. Racemus pauciflorus, axi glabro vel tenuiter pubescente nec canescente. Folia floralia glabra, calyces interdum fere glabri. Corolla cœrulea, ultrapollicaris, tubo amplo superne dilatato. Galea incurva, lobi laterales lato-ovati, abbreviati, labium ovatum convexum galea longius.

Dr. Torrey's herbarium contains specimens of a Kentucky plant resembling this species in some respects, but much smaller in all its parts, and with the lower leaves cordate at the base, thus coming very near to the East Indian *S. violacea*; and in the Royal Munich herbarium is a Mexican specimen, which seems to be a hairy variety of the Kentucky one, but in neither case are the specimens good enough to warrant their being added to the species of this very difficult genus.

35. *S. PILOSA* (Mich. Fl. Bor. Amer. 2. 11), caule erecto simpliciusculo pubescente, foliis remotis breviter petiolatis ovatis obtusis crenatis basi infimis rotundatis superioribus cuneatis vel angustatis utrinque pubescentibus vel pilosis, floralibus obovato-lanceolatis calycem subæquantibus, racemis laxis subramosis paniculatis, floribus oppositis secundis, calycibus villosis, corollis extus tenuiter pubescentibus, fauce subdilatata.

S. caroliniana. *Walt. Fl. Carol.* 163.

S. elliptica. *Muhlenb. Cat.?*

β tenuiter pubescens nec pilosa.

S. ovalifolia. *Pers. Syn.* 2. 136?

Hab. in America boreali: in umbrosis sylvaticis in Pennsylvania *Bartram!* *Schweinitz!* ad West Chester *Drummond!* in Virginia *Pursh!* Carolina *Pursh!* *Wray!* Georgia *Herb. Torrey, Elliott, Michaux,* Novo Aureliano *Drummond!* β ad Princeton in New Jersey *Torrey!* (h. s. sp.)

Caules elongati, acute tetragoni, parce foliosi. Folia circiter sesquipollicaria, pollicem lata, utrinque tenuiter pubescentia, vel supra et subtus ad nervos piloso-hispida, pallide viridia, subconcoloria, obtuse et remote crenata, infima parva, rotundata. Racemus vel panicula brevis pauciflora. Pedicelli calyce longiores. Squama calycis brevis. Corollæ cœruleæ 8-9 lin. longæ, vix pubescentes. Faux dilatata, at minus quam in *S. integrifolia*. Galea magna, erecta, lobi laterales ea paullo breviores, ovati, labium latissimum convexum patens. "Flores autumnales vix conspicui sunt, at fertiles."—*Bartram in Herb. Banks.* Var. β pubescentia ad *S. integrifolium* accedit; an hujus, an istæ var.?

34. *S. VILLOSA* (Elliott Bot. N. Car. et Georg. 2. 90).

Hab. in America boreali: in Georgia inter fluvia Oakmulgu et Flint *Elliott.*

* Pursh's *S. serrata* is made up of this and the preceding species, both very distinct, but mixed up in his herbarium.

“*S. caule erecto ramoso villosa, foliis majusculis lanceolatis utrinque acutis grosse dentatis subtus villosis supra subhispidis, racemis paniculatis confertifloris.*”
—*Elliott l. c.*

35. *S. INTEGRIFOLIA* (Linn.! Spec. 836), caule erecto simpliciusculo pubescente, foliis remotis breviter petiolatis oblongo-lanceolatis linearibusve obtusis integerrimis vel inferioribus dentatis glabriusculis, floralibus calycem superantibus, racemis laxis subramosis, floribus oppositis secundis, calycibus pubescentibus, corollis glabriusculis, tubo superne fauceque ample dilatatis.

S. polymorpha. *Arth. Hamilt. Monogr.* 38.

S. hyssopifolia. *Linn. Spec.* 836.

S. caroliniana. *Lam. Dict.* 7. 706. *Illustr. t.* 515. *f.* 3.

S. ovalifolia. *Pers. Syn.* 2. 136?

β hispida.

Hab. in America boreali in siccis *Pursh*, humidis *Elliott*, a Pennsylvania! et Novo Eboraco! ad Carolinam! Georgiam *Elliott*, et Novum Aurelianum *Drummond*! prope West Chester *Herb. Hooker*!
β in Novo Aureliano *Drummond*! (*h. s. sp.*)

Habitus fere *S. pilosæ*, sed foliis et floribus distinctissima. Folia infima sæpius parva, ovata, obtusissima, dentata, subtus purpurascentia, superiora 1-1½-pollicaria, obtusiuscula, pallide viridia vel in locis siccis purpurascentia, nunc glabra sæpius tenuissime pubescentia, integerrima vel rarissime utroque margine dente uno alterove notata. Inflorescentia *S. pilosæ*. Corolla ampla, pulchre cœrulea, labio inferiore maculo intensiore notato, forma fere *Physostegia*, 8-9 lin. longa. Tubus basi tantum angustatus, superne cum fauce valde dilatatus. Galea incurva, lobi laterales dimidio breviores, erecti, ovati. Labium amplissimum, convexum, patens, emarginatum. Antheræ longe barbatae. Achenia non vidi. In var. *β* caules hispidi, corollæ villosæ.

36.? *S. LINEARIS* (Benth. in Wall. Pl. As. Rar. 1. 66), caule procumbente, foliis subsessilibus oblongo-linearibus obtusis subintegerrimis margine subrevolutis subtus canescentibus, floralibus ovatis concavis calyce sublongioribus, racemis simplicibus densis, floribus oppositis subsecundis, calycibus pilosis, corollis glabriusculis.

Hab. in India Orientali in montibus Kamaonensibus *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Caules e basi crasso sublignoso numerosi, basi procumbentes, adscendentes, piloso-pubescentes, vix semipedales. Folia 6-9 lin. longa, 2 lin. lata, supra glabriuscula, inferiora interdum paullo latiora et margine utrinque dentibus 1-2 obscure notata; floralia herbacea, lato-ovata, obtusa, integerrima, concava, laxa, pilosa, calyces superantia. Racemi vel spicæ demum 2-3-pollicares. Flores fere *S. alpinæ*. Corolla ochroleuca fere pollicaris, tubo basi attenuato, fauce dilatata, labiis latis purpurascentibus. Genitalia subexserta. Antheræ breviter barbatae. Achenia tomentosa. Habitus inter *Lupulinarias* et *Stachymacrides angustifolias* media.

37.? *S. VISCIDULA* (Bunge! Enum. Pl. Chin. Bor. 52), caulibus decumbentibus, foliis sessilibus lineari-oblongis obtusis integerrimis planis utrinque viridibus viscidulis, floralibus ovatis concavis calyce sublongioribus, calycibus pilosis, corollis glabriusculis.

Hab. in China boreali: in glareosis inter Jui-lin et Zsimin-i *Bunge*! (*h. s. sp. comm. a cl. Bunge.*)

Habitus *S. linearis*, cui valde affinis, sed foliis planis utrinque viridibus viscidulis et parum latioribus diversa. Racemi in exemplare suppetente manci, sed flores iis *S. linearis* fere conformes videntur. Corolla ex Bunge l. c. ochroleuca. An cum *S. lineari* ad *Lupulinarias* amandanda?

May 1834.

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38. *S. MACRANTHA* (Fisch.! Reichb. Icon. Bot. Eur. 5. 52. t. 488), caule basi procumbente adscendente glabriusculo, foliis sessilibus lanceolatis obtusis integerrimis basi rotundatis subglabris ciliatis, floralibus calyce longioribus, racemis simplicibus, floribus oppositis secundis, calycibus pilosis, corollis amplis extus pubescentibus, tubo superne dilatato.

Scutellaria, &c. *Gmel. Fl. Sib.* 3. 228. n. 50.

S. grandiflora. *Ad. sec. Bunge!* non *Sims.*

Hab. in Asia Orientali: in Dahuria *Fischer!* *Bunge!* in montosis Nertschiæ et Argunensium officinarum frequens *Pallas!* in China boreali, non rara in montosis Zini-wey-schan et alibi, nec non in ipso muro magno *Bunge!* inter Pekin et Jehol *Sir G. Staunton!* (*h. s. sp. comm. a cl. Bunge, et v. s. sp. in herb. Lambert et Banks.*)

Species pulchra et characteribus datis distinctissima. Caulis sæpe purpurascit, angulis linea pilosa sæpius ciliatis, cæterum glaber. Folia supra atroviridia, glabra, vel pilis raris brevibus obsessa, subtus pallidiora glaberrima. Floralia inferiora caulinis conformia, superiora bracteæformia. Racemi plurimi, floribus internodio longioribus. Corolla pollicaris, cærulea, tubo superne valde dilatato, galea incurva, lobis lateralibus dimidio brevioribus, labio lato convexo subpatente galeam æquante. Antheræ breviter barbatae.

This species connects the two sections *Stachymacris* and *Galericularia*.

SECTIO IV. GALERICULARIA.

Galericularia. *Arth. Hamilt. Monogr.* 31.

§ 3. Axillares. *Benth. in Bot. Reg.* l. c.

Folia floralia herbacea caulinis conformia vel gradatim minora. Flores oppositi secundi axillares vel supremi subracemosi.

39. *S. ANGUSTIFOLIA* (Pursh! Fl. Amer. Sept. 2. 412), glabriuscula, caule erecto simpliciusculo, foliis infimis petiolatis ovatis dentatis superioribus subsessilibus oblongo-linearibus integerrimis omnibus basi rotundato-cuneatis, floralibus conformibus supremis sterilibus, floribus axillaribus oppositis secundis, calycibus pedicello brevioribus.

S. epilobiifolia. *Arth. Hamilt. Monogr.* 32.

Hab. in America boreali occidentali secus flumina Kooskoosky *Pursh!* et Columbia ab ortu ad arcem Vancouver *Douglas!* (*h. s. sp. e herb. Soc. Hort. Lond., et v. s. sp. in herb. Lambert.*)

Herba vix semipedalis, in omni parte glabra vel tenuissime pubescens. Flores pauci folia vix superantes. Calycis squama labium superius breviter excedens. Corolla 8 lin. longa, labiis subæqualibus, lobis lateralibus brevissimis, fauce parum dilatata.

An imperfect specimen collected by Drummond at Covington in Louisiana, appears also to belong to this species.

40. *S. SCORDIFOLIA* (Fisch.! Ind. Hort. Petr. 62. Trev. in Nov. Act. Acad. Nat. Cur. 13. 185), glabra, caule ramoso, foliis breviter petiolatis oblongo-lanceolatis obtusis integerrimis vel remote serratis basi rotundatis vel cuneatis, floralibus conformibus gradatim minoribus, floribus axillaribus oppositis secundis.

Cassida, &c. *Amman. Stirp. Ruth.* 43. t. 55.

Scutellaria, &c. *Gmel. Fl. Sib.* 3. 229. n. 51. t. 47?

S. Adamsii. *Spr. Syst.* 2. 701? *Arth. Hamilt. Monogr.* 34. t. 2. f. 3.

β Adamsii, foliis minus dentatis, floralibus minoribus, floribus subracemosis.

Hab. in Rossia orientali ad lacum Baikal *Gmelin*, in jugo Altaico *Bunge!* *Dahuria Pallas!* *Bunge!* ad Selengany et in Kamtchatka *Pallas!* (*h. s. sp. comm. a cl. Bunge.*)

Species media inter *S. angustifoliam* et *galericulatam*. Caulis videtur erectus vel adscendens. Statura minor quam in *S. galericulata*. Caules e basi ramoso erecti, vix semipedales, plerumque glabri. Folia glabra, latiora quam in *S. angustifolia*, angustiora quam in *S. galericulata*, serraturis paucis obtusis remotis plerumque notata, et basi rotundato-cuneata nec cordata. Calyces glabri purpurascens, squama brevi obtusa. Corolla *S. angustifoliæ* vel etiam parum longior. Var. *β* habitu simillima, et vix characteribus supra notatis distinguitur.

In *Gmelin's* figure the leaves are represented broader than in the specimens I have seen; yet it appears probable that he had this plant in view, and not the *S. galericulata*, from which he distinguishes it.

41. *S. GALERICULATA* (Linn.! Spec. 835), caule ramoso divaricato, foliis brevissime petiolatis ovato-lanceolatis acutis basi rotundato-cordatis, floralibus conformibus, floribus axillaribus oppositis secundis brevissime pedicellatis.

Cassida galericulata. *Mænoch. Meth.* 413.

S. galericulata. *Sm. Engl. Bot.* 8. t. 523. *Hook. Fl. Lond.* v. 2. ic.

α pubescens, caule, foliorum pagina inferiore, calycibus, corollisque pubescentibus.

β vulgaris, caule foliisque glabris, corollis pubescentibus.

γ glaberrima, corollis minoribus, caule foliisque glabris.

Hab. in humidis Europæ, Asiæ, et Americæ borealis, in Lapponia *Fellmann!* Scotia! Anglia! Gallia! Hispania septentrionali! Germania! Italia a Pedemonte! ad Calabriam *Tenore*, at in australioribus regionis Mediterraneæ rarius est, nec in Flora Siciliana nec Græca occurrit, in Rossia a Petropoli *Sobolewski*, et Caucaso *Bieberstein*, ad jugum Altai-cum et Dahuriam *Bunge!* in omni superiore Jenisei regionis usque ad Ircutiam et ultra *Gmelin*, nec in jugo Himalayano? in America ab ora boreali-occidentali ad Canadam! et Novum Eboracum! in civitatibus australioribus deesse videtur; *α* in America vulgatior occurrit, etiam in jugo Altaico, at vix in Europa; *β* est Europæa et Asiatica, at rarius in America; *γ* a Douglassio in America boreali-occidentali lecta fuit. (*v. v. et h. s. sp.*)

Planta quoad staturam et pubescentiam variabilis, sed foliorum forma et floribus facile distinguenda. Calyx breviter pedicellatus, sæpius pubescens, squama labio superiore brevior. Corolla 7-8 lin. longa, cœrulea, tubo superne fauceque dilatatis. Galea labio subbrevior lobi laterales breves, erecti, ovati. Achenia tuberculoso-rugosa. In var. *γ*. corolla vix ultra 6 lin. longa, et uti tota planta glaberrima.

42. *S. HASTÆFOLIA* (Linn.! Spec. 835), caule adscendente simpliciusculo glabro, foliis breviter petiolatis ovato-lanceolatis obtusis margine integerrimis basi truncatis hastato-sublobatis, floralibus conformibus gradatim minoribus, floribus oppositis secundis subracemosis,

calycibus pubescentibus, corollis elongatis, fauce dilatata, galea labio inferiore brevior.

Cassida hastifolia. Scop. *Fl. Carn.* 1. 430.

Hab. in Europæ et Asiæ occidentalis humidis rarius: in Gallia in regione Andegavense! et Aureliano *A. de St. Hilaire!* in Scania *Fries!* in Austria et Germania *Willdenow, Reichenbach!* prope Budam *Lang!* ad Kumam rivum *Bieberstein.* (*h. s. sp. comm. a cl. Requien.*)

A *S. galericulata* differt foliis basi hastatis, corollis parum longioribus, in racemo terminali magis approximatis.

43. *S. RIVULARIS* (Wall. ! Pl. As. Rar. 2. 66), glaberrima, caule basi procumbente, ramis adscendentibus simpliciusculis, foliis infimis petiolatis ovato-rotundatis mediisque ovato-lanceolatis obtusis crenatis basi dilatatis cordatis superioribus floralibusque minoribus basi angustatis, floribus oppositis secundis subracemosis, calycibus corollisque glabris.

S. peregrina. Roxb. *Hort. Beng.* 45. non Linn.

S. barbata. Don. *Prod. Fl. Nep.* 109.

S. squamulosa. Arth. *Hamilt. Monogr.* 35.

Hab. in Asiæ mediæ rivulis: in Indiæ orientalis vallibus Napalensibus *Wallich!* in Chinæ provincia To-keen *Reeves!* et Kia-nong *Sir G. Staunton!* (*h. s. sp. e Mus. Angl. Ind., et v. s. sp. e China, in herb. Lindley et Banks.*)

Caules basi radicales, semipedales pedalesve. Folia ramorum steriliū vix semipollicaria, subrotunda, caulina inferiora pollicaria, superiora gradatim minora, floralia suprema calycem breviter excedentia. Corolla 4 lin. longa, fauce parum dilatata. Galea brevis, lobi laterales eam subæquantes, ovati, erecti, labium inferius paullo longius, latum, convexum, emarginatum, subpatens.

In speciminibus Chinensibus cæterum omnino conformibus, folia fere omnia basi rotundata vel angustata, rarius cordata.

Don's name was published previous to Wallich's; but as there is nothing in the plant to justify the name of *barbata* (unless it be that the roots are, as in all aquatic plants, very fibrous); and as, moreover, Dr. Wallich had long distributed his plant under the MS. name of *rivularis*, I have preserved the latter. The "petites écailles blanchâtres, dispersées, circulaires, déprimées au centre, et à peine poilues," which induced Arth. Hamilton to give this plant the name of *S. squamulosa*, are the glands of the leaves which have become flattened by desiccation.

44. *S. RUMICIFOLIA* (Humb. et Kunth. ! Nov. Gen. et Sp. 2. 324), glaberrima, caule humili diffuso ramoso, foliis infimis petiolatis lato-ovatis basi hastato-cordatis mediis lanceolatis acutis basi hastatis supremis floralibusque subsessilibus lanceolatis linearibusve basi rotundatis angustatisve, floribus minutis oppositis secundis.

S. racemosa. Pers. *Syn.* 2. 136.

Hab. in America præsertim meridionali: ad Hacienda de la Llaguna Mexicanorum *Schiede et Deppe,* Santa Fé de Bogota *Gudot!* Montevideo *Commerson!* *A. de St. Hilaire!* *Sello!* Rio Pardo provinciæ Brasiliensis Rio Grande do Sul *A. de St. Hilaire!* Mendoza *Gillies!* Valparaiso *Cuming!* (*h. s. sp.*)

Herba pusilla semipedalis vel rarius subpedalis basi ramosissima, radicans, ramis acute tetragonis. Folia ramorum steriliū sæpe *Rumicis acetosellæ* formam

æmulantia, canlina inferiora semipollicaria, superiora vix 3 lin. longa. Flores fere *S. minoris*. Pedicelli lineas 2, calyces 1 longi. Corolla (*S. minoris*) extus tenuissime pubescens vix 3 lin. longa. Faux vix dilatata. Galea parva, lobi laterales breves, labium inferius paullo longius, latum, emarginatum, patens. Squama calycis brevis. Genitalia subexserta.

45. *S. MINOR* (Linn. ! Spec. 835), humilis glabra, foliis breviter petiolatis infimis lato-ovatis mediisque ovato-lanceolatis basi cordatis subhastatis supremis floralibusque lanceolatis basi rotundatis omnibus obtusis, floribus parvis axillaribus oppositis secundis, corollis subglabris, fauce vix dilatata.

S. breviflora. Turczan. ! MSS.

S. minor. Sm. Eng. Bot. 8. t. 524. Hook. Fl. Lond. v. 2. ic.

Hab. in Europæ et Asiæ mediæ palustribus: in Anglia! Gallia præsertim occidentali! Hispania occidentali, Lusitania *Brotero*, in Germania præsertim septentrionali *Reichenbach*, in Siberia prope Irkutsk *Turczaninow*! (v. v. et h. s. sp.)

Folia *S. galericulatæ*, sed statura multoties minor. Tota planta vix 4-6-pollicaris. Folia omnia etiam floralia petiolata, inferiora sæpius breviter hastatolobata, et hinc inde subdentata, cæterum integerrima, infima subrotunda, parva, media 6-9 lin. longa, superiora et floralia vix 4 lin. Pedicelli calycem æquantes. Squama calycis brevissima. Corolla 3 lin. longa, basi vix recurva. Galea parva, lobi laterales ei subæqualia. Labium longius, subpatens, emarginatum. Genitalia subexserta.

I cannot perceive the slightest difference between the specimens gathered by *Turczaninow* at Irkutsk, and kindly communicated to me by M. Bunge, and the European ones.

46. *S. HAVANENSIS* (Jacq. Obs. 2. 5. t. 29).

Hab. Havanæ in rupestribus maritimis *Jacquin*.

“*S. foliis cordato-ovatis crenatis floribus axillaribus, labio corollæ utroque trifido.*

“*Planta tenella, ramosa, procumbenti-erecta, herbacea. Folia cordato-ovata, obtusa, crenata, glabriuscula, petiolata, opposita, vix semipollicaria. Pedunculi uniflori solitarii, axillares. Flores inodori, fere pollicares, cœrulei, caractere congenerum, sed calycis bilabiati laciniis subrotundis, integerrimis, et fere æqualibus, corollæque labio inferiori semitrifido et paullo longiore, superiore laciniis subrotundis, media emarginata ac latiora lateralibus integerrimis.*”—*Jacq. Stirp. Amer. 172.*

47. *S. MICROPHYLLA* (Moç. et Sessé! Benth. in Bot. Reg. 18. ad calc. n. 1493), pubescens, caule diffuso humili ramoso, foliis petiolatis inferioribus rotundatis sinuato-crenatis superioribus ovatis supremis subintegerrimis utrinque angustatis, floribus parvis axillaribus oppositis secundis, pedicellis calyce longioribus.

Hab. in Nova Hispania *Moçino et Sessé*! (v. s. sp. in herb. *Lambert*.)

Valde affinis *S. humili*, at villosa. Folia superiora basi rotundata, inferiora tantum late cordata. Rami tenues patentim pubescentes. Corolla magnitudine *S. minoris*. Calyx basi pubescens, squama post anthesin maxima, membranacea, glabra.

48. *S. HUMILIS* (Br. Prod. 507), strigoso-pubescens, caule humili, foliis breviter petiolatis infimis rotundatis inciso-crenatis, superioribus ovatis rotundato-dilatatis subhastato-lobatis omnibus basi cordatis, floralibus supremis calycem vix excedentibus, floribus parvis axillaribus oppositis secundis.

Hab. in Australia ad Portum Jackson et in Terra Van Diemen *R. Brown, Gunn! Caley! A. Cunningham! &c. (h. s. sp.)*

Statura *S. minoris* et *parvulæ*, sed parum ramosa. Caulis anguli foliorum pagina superior et nervi paginae inferioris pilis brevibus strigosis pubescentes. Folia vix 3-4-linearia, inferiora latitudine longitudinem excedentia, obtusissime crenata, superiora basi auriculis rotundatis subcrenatis hastata, versus apicem integerrima. Flores *S. minoris* etiam breviores. Calyces glaberrimi, squama labio superiore paullo longiore. Corolla calyce duplo longior subrecta, tubo superne fauceque valde dilatatis. Galea brevissima, lobi laterales lati, labium duplo longius, convexum integrum? Genitalia breviter exserta. Antheræ generis.

49. *S. PARVULA* (Mich. Fl. Bor. Amer. 1. 12), caule humili divaricato ramoso pubescente, foliis infimis breviter petiolatis ovato-rotundatis mediis superioribus floralibusque sessilibus ovatis vel ovato-lanceolatis omnibus obtusis integerrimis vel rarissime dentatis basi subcordatis, floribus parvis axillaribus oppositis secundis, corollis subglabris, fauce vix dilatata, calyce vix duplo longioribus.

S. ambigua. Nutt. Gen. 2. 37.

S. parvula. Hook. Exot. Fl. 2. t. 106.

Hab. in America boreali: ad ripas fluviorum et in humidis in Canada! Virginia! et ad Missouri! vulgaris videtur, etiam in regione Illinoensi *Michaux*, ad Lexington in Kentucky (exempl. majora) *Herb. Torrey!* et ad Rio Brazos provinciæ Texas Mexicanorum *Drummond!* (*h. s. sp.*)

Herba vix 4-6-pollicaris, subdecumbens, ramosa, ramis acute tetragonis, dense foliosis plus minusve pubescentibus. Folia parva, media vix ultra semipollicem longa, superiora gradatim minora, angustiora, infima breviora latiora, inferiora nonnunquam hinc inde subdentata, superiora et floralia constanter integerrima, omnia nervosa, pubescentia vel glabriuscula, pallide viridia vel purpurascens. Calyces breviter pedicellati, pubescentes, squama labium superius excedente. Corolla forma corollæ *S. minoris* et vix longior. Genitalia subexserta. Achenia tuberculoso-rugosa.

50. *S. RESINOSA* (Torrey! Pl. Rock. Mount. 232), minute glanduloso-pubescent, caule humili erecto ramosissimo, foliis vix petiolatis lato-ovatis obtusis integerrimis basi rotundatis, floralibus conformibus, floribus axillaribus oppositis secundis, corollis villosis calyce plus quadruplo longioribus.

Hab. in America boreali: ad flum. Canadian inter Rocky Mountains *Torrey!* (*h. s. sp. in herb. Torrey.*)

Habitu *S. parvulæ* affinis, sed rigidior ramosior. Folia vix 4-5 lin. longa, basi subcuneato-rotundata nec cordata, utrinque viridia, subtus nervosa, oculo nudo glabra videntur sed sub lente pubescentia resinoso-glandulosa utrinque uti rami irrorata, superiora minora vix angustiora. Calyx glanduloso-pubescent, herbaceus, squama maxima. Corolla magnitudine *S. galericulatae*, cœrulea, dense villosa, basi attenuata.

51. *S. ANTIRRHINOIDES* (Benth. in Bot. Reg. 18. ad calc. n. 1493), caule diffuso ramoso glabro, foliis breviter petiolatis ovatis obtusis integerrimis basi angustatis crassiusculis glabris vel tenuissime pubescentibus, floralibus conformibus supremis sterilibus, floribus axillaribus oppositis secundis, calycibus pedicello brevioribus.

Hab. in America boreali: prope arcem Vancouver ad ripas fluminis Columbiae *Scouler!* (*h. s. sp. comm. a cl. Hooker.*)

Habitus *Antirrhini sempervirentis*. Rami læves, acute tetragoni, glabri vel oculo armato tenuiter pubescentes. Folia semipollicaria, foliis *Antirrhini sempervirentis* simillima. Flores omnino *S. angustifoliæ*.

52. *S. NERVOSA* (Pursh. ! Fl. Bor. Amer. 2. 412), caule simpliciusculo glabro, foliis infimis petiolatis rotundatis mediis sessilibus lato-ovatis dentato-crenatis basi cordatis, floralibus supremis ovato-lanceolatis integerrimis omnibus glabris vel supra hispidulis margine scabris, floribus parvis axillaribus oppositis secundis, corollis glabriusculis calyce duplo triplove longioribus.

S. teucrifolia. Sm. ! in *Rees Cycl.* v. 32. n. 15.

S. parviflora. Rafin. *Itin. ex Arth. Hamilt. Monogr.* 37.

S. gracilis. Nutt. *Gen.* 2. 37.

Hab. in Americæ borealis dumosis ad ripas flum. Schuylkill *Nuttall*, Susquehanna *Herb. Banks* ! Missouri *Herb. Hooker* ! Ohio *Drummond* ! (*h. s. sp.*)

Herba tenera, læte viridis, caule acute tetragono subalato. Foliorum paria 2 infima ut in *S. parvula* purpurascentia, parva, media 10-12 lin. longa, vix angustiora, membranacea, nervosa, obtusa, crenaturis paucis remotis notata, floralia infima conformia, superiora gradatim minora, angustiora, integriora, at calyces duplo triplove superantia. Calyces glabri, floriferi pedicello breviores, fructiferi valde aucti, squama latissima membranacea labium superius superante. Corollæ parum majores quam in *S. parvula* et *minore*, cœruleæ, extus tenuiter pubescentes, tubo superne parum dilatato. Galea parva, concava, lobi laterales rotundati patentes, cum infimo emarginato labium inferius convexum patens formantes. Stamina longiora, subexserta. Achenia tuberculoso-rugosa.

53. *S. DRUMMONDII*, caulibus adscendentibus subramosis villosis, foliis petiolatis ovatis obtusis crenatis basi cuneatis, floralibus integrioribus minoribus omnibus utrinque villosis, floribus parvis axillaribus oppositis secundis, corollis villosis calyce vix triplo longioribus.

Hab. in America boreali: ad Rio Brazos provinciæ Texas Mexicanorum *Drummond* ! (*h. s. sp.*)

Rami semipedales, tetragoni. Folia semipollicaria, infima ovata, petiolo pollicari, superiora subsessilia, suprema elliptica, subintegerrima, omnia flores subsuperantia. Corollæ 3-4 lin. longæ, cœruleæ. Habitus *S. parvulæ*, sed villositate et foliis crenatis distinctissima. Affinis *S. molli*, a qua differt foliis basi cuneatis nec cordatis, et floralibus supremis majoribus.

54. *S. MOLLIS* (Br. Prod. 507), caule simpliciusculo pubescente, foliis petiolatis ovato-rotundatis obtusis grosse crenatis basi late cordatis, superioribus floralibusque ovato-lanceolatis acutis omnibus utrinque molliter villosis, floribus oppositis secundis axillaribus vel supremis subracemosis, corollis calyce pedicello brevior duplo longioribus.

Hab. in Nova Hollandia *R. Brown, Caley* ! (*v. s. sp. in herb. Lambert.*)

Caules pedales et ultra, parum ramosi, angulis acutis pubescentibus. Folia infima longe, superiora breviter petiolata, floralia omnia crenata calyces excedentia, juniora dense villosa, vetustiora pilis supra sparsis et subtus secus nervos obsessa. Pedicelli, calyces, et corollæ villosa. Corollæ 3-4-lineares videntur, sed in speciminibus suppetentibus vix aperti.

55. *S. TUBEROSA*, caule humili simplici erecto villoso, foliis petiolatis lato-ovatis obtusis grosse crenatis basi rotundato-truncatis, floralibus oblongis omnibus utrinque villosis, floribus axillaribus oppositis secundis, corollis villosis calyce plus quadruplo longioribus.

Hab. in California septentrionali *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caules e radice oblonga tuberosa simplices, solitarii, vix 1-3-pollicares. Folia 4-5 lin. longa, floralia gradatim minora floribus breviora at calyces excedentia, omnia crenata vel rarius integerrima. Corollæ magnitudine *S. galericulatae*, tubo tenui.

56. *S. CÆRULEA* (Moç. et Sessé! Benth. in Bot. Reg. 18. ad calc. n. 1493), caule simpliciusculo pubescente, foliis breviter petiolatis ovato-rhomboideis obtusis crenatis basi rotundatis, floralibus subconformibus angustioribus supremis lanceolatis subintegerrimis omnibus supra pubescentibus, floribus oppositis secundis axillaribus vel supremis subracemosis, corollis calyce subsessili sextuplo longioribus.

β foliis utrinque pubescentibus.

Hab. in Mexico *Moçino et Sessé!* β prope Tlalpuxahua *G. J. Graham!* (*h. s. sp. comm. a cl. Graham, et v. s. sp. in herb. Lambert et Mus. Reg. Berol.*)

Caules semipedales pedalesve, adscendentes, tetragoni, interdum subalati. Folia infima parva, subrotunda, media pollicaria, floralia gradatim minora et integriora, suprema calyce duplo longiora, integerrima vel dente uno alterove notata. Pedicelli calyce breviores. Corolla 8-9 lin. longa, extus pubescens, tubo tenui superne vix dilatato. Galea brevis, lobi laterales lati, subpatentes, infimus galea subduplo longior, latus, convexus, emarginatus, dente parvo in emarginatura auctus. Squama calycis demum labium superius superans.

57. *S. MOCINIANA*, ramis adscendentibus? basi villosis, foliis petiolatis ovatis subsinuato-crenatis utrinque viridibus supra hispidulis subtus subglabris, floralibus infimis conformibus supremis parvis oblongis, floribus oppositis secundis, corollis calyce pedunculato sextuplo longioribus.

Hab. in Nova Hispania *Moçino et Sessé!* (*v. s. sp. in herb. Lambert.*)

Rami basi sublignosi videntur, apice glabriusculi. Folia pollicaria. Corollæ speciosæ coccineæ? sesquipollicares, incurvæ, glabriusculæ, tubo superne valde dilatato, limbo erecto, lobis lateralibus cum supremo labium superius formantibus, infimus vix emarginatus, labio superiore brevior.

58.? *S. MALVÆFOLIA* (Kunth. Nov. Gen. et Sp. Pl. Amer. 2. 325).

Hab. in America meridionali: in locis montosis alsis juxta fodinam Sanctæ Annæ provinciæ Mariquitensi, in regno Novæ Granatæ *Humboldt et Bonpland.*

“*S. foliis subrotundo-ovatis obtusis grosse serrato-crenatis supra pilis adpressis conspersis subtus glabris, floribus axillaribus subspicatis.*

“Caulis ramosus, erectus, tetragonus, tenuissime pubescens. Folia petiolata, subrotundo-ovata, obtusa, grosse serrato-crenata, reticulato-venosa, supra pilis adpressis conspersa, subtus glabra, 8-10 lin. longa, 7 lin. lata. Petioli 4-5 lin. longi, tenuissime pubescentes. Flores axillares, oppositi, pedunculati, subspicati, 4-5 lin. longi. Pedunculi lineam vix longi, pubescentes, medio bracteis duabus minutis subulatis instructi. Calyx generis tenuissime pubescens. Corolla generis cœrulea? labio superiore extus pubescente. Stamina 4, didynama, in labio superiore latentia. Filamenta glabra. Antheræ pubescentes. Stylus glaber, longitudine staminum. Stigma acutum. Achenia 4 minima, in fundo calycis persistentis clausi, subglobosa, fusca.” — *Kunth. l. c.*

Hæc species cum binis sequentibus forsan ad *Perilomiam* referenda.

59.? *S. CUMANENSIS* (Kunth. Nov. Gen. et Sp. Amer. 2. 325).

Hab. in America meridionali : in locis siccis prope Cumana et Bordonas *Humboldt et Bonpland*.

“*S. fruticosa*, foliis ovatis aut ovato-suborbiculatis obtusis basi rotundatis aut cuneatis crenatis utrinque hirto-pubescentibus subtus canescentibus, floribus axillaribus solitariis.

“Rami lignosi, tetragoni, læves, glabri, angulis incrassatis. Folia petiolata, ovata, aut ovato-suborbiculata, obtusa, basi rotundata aut cuneata, crenata, reticulato-venosa, nervo venisque subtus prominentibus, membranacea, utrinque hirto-pubescentia, subtus canescentia, 8-12 lin. longa, 7-8 lin. lata. Petioli 3-5 lin. longi, canaliculati, piloso-pubescentes. Flores axillares, solitarii, oppositi, pedunculati, semipollicares. Pedicelli 1-1½ lin. longi, pubescentes. Calyx campanulatus, dorso gibbosus, pubescens, labiis æqualibus integris. Corolla generis, externe pubescens, calyce quintuplo longior. Fructus in fundo calycis bipartiti et clausi. Achenia 4, oblonga, convexo-trigona, lævia, glabra, in specimine suppetente immatura. Structuram corollæ et staminum in unico suppetente flore marcido penitus explorare haud potui.”—*Kunth. l. c.*

60. *S. VOLUBILIS* (Kunth. Nov. Gen. et Sp. Amer. 2. 325).

Hab. in America meridionali : in sylvis opacatis juxta Loxa et Gonzanama Novo-Granatensium *Humboldt et Bonpland*.

“*S. volubilis*, foliis ellipticis utrinque rotundatis crenatis supra pubescenti-pilosis subtus molliter piloso-tomentosis et incanis, floribus axillaribus solitariis.

“Caulis volubilis, ramis quadrangularibus medulla alba refertis lævibus dense et molliter pilosis. Folia opposita, petiolata, elliptica, utrinque rotundata aut basi acuta, crenata, reticulato-quintuplinervia, nervo venisque subtus prominentibus, membranacea, supra pubescenti-pilosa et viridia, subtus molliter piloso-tomentosa et incana, 14-16 lin. longa, 9 lin. lata. Petioli 4-5 lin. longi, canaliculati, dense pilosi. Flores axillares, solitarii, oppositi, breviter pedicellati, 7-8 lin. longi. Calyx brevis, campanulatus, bilabiatus, piloso-pubescens, labiis æqualibus rotundatis integris. Corolla generis? externe hirto-pubescens, rubra ex Bonpl. Stamina 4, didynama, exserta. Filamenta superne puberula. Antheræ biloculares, subdidynamæ, loculo altero in staminibus longioribus minore aut abortivo? Ovaria quatuor disco communi imposita, glabra. Stylus glaber exsertus. Stigma bifidum? Fructus in fundo calycis bipartiti et clausi. Achenia 4, oblonga, convexo-trigona, lævia, fusca, glabra, in specimine suppetente immatura. Flores suppetentes nondum aperti.”—*Kunth. l. c.*

SECTIO V. MASCHALOSTACHYS.

§ 4. Laterifloræ. *Benth. in Bot. Reg. l. c.*

Folia floralia herbacea, infima caulinis conformia, superiora parva, bracteæformia. Flores oppositi, secundi, plerumque in racemis axillaribus terminalibusque dispositi.

61. *S. REPENS* (Hamilt. ! in Don. Prod. Fl. Nep. 110), cano-pubescens, superne viscosa, ramis scandentibus, foliis petiolatis ovatis crenatis basi rotundatis subcordatis supremis acutis basi subcuneatis, floralibus ovatis obtusis calyces subsuperantibus, racemis numerosis axillaribus terminalibusque abbreviatis laxis, floribus oppositis secundis.

S. cana. *Wall. ! Pl. As. Rar. 1. 67.*

S. Wallichiana. *Arth. Hamilt. Monogr. 28. t. 2. f. 1.*

Hab. in Indiæ orientalis montibus Napalensibus Kamaonensibus et Avensibus *Wallich ! (h. s. sp. e Mus. Angl. Ind.)*

May 1834.

3 M

Rami longissimi, ramosi, subtetragoni, tomento cano pubescentes. Folia sesquipollicaria, rugosula, supra viridia, pubescentia, subtus cano-tomentosa. Racemi 2-4-pollicares, sæpe ramosi, in apice caulis dense paniculati, secus ramos subremoti, flexuosi, canescentes, viscoso-pubescentes. Calyces subsessiles, parvi. Corollæ 7-8 lin. longæ, basi valde attenuatæ, fauce inflata, labiis subæqualibus, superiore elongato falcato galeato, lobis lateralibus ad basin galeæ brevibus obtusissimis, labio inferiore valde convexo, patente. Achenia tuberculoso-rugosa, glabra.

62. *S. scandens* (Don! Prod. Fl. Nep. 110), caule scandente, ramis glabris acutissime tetragonis, foliis breviter petiolatis ovato-lanceolatis acuminatis crenatis basi rotundato-cordatis glabris, floralibus lato-ovatis acuminatis vix calycem superantibus, racemis axillaribus terminalibusque pubescentibus, floribus oppositis secundis.

S. angulosa. Benth. in Wall. Pl. As. Rar. 1. 67.

S. celtidifolia. Arth. Hamilt. Monogr. 27.

Hab. in Indiæ orientalis montibus Kamaonensibus et Napalensibus Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Rami glabri, læves, sæpe glaucescentes, angulis acutis callosis. Folia 1-2½-pollicaria, sæpius glaberrima, rarius supra pilis raris hispidula, acumine longo integerrimo terminata. Racemi flexuosi, rhachi, calycibus, corollis, bracteisque supremis pubescentibus. Corolla fere pollicaris basi parum attenuata, fauce dilatata, galea valde falcata acuta, lobis lateralibus ovatis erectis galea dimidio brevioribus, lobo medio rotundato patente sublongioribus.

63. *S. lateriflora* (Linn.! Spec. 835), glabra, caule erecto ramoso, foliis petiolatis ovato-lanceolatis acuminatis basi rotundatis, floralibus superioribus calycem vix superantibus, racemis axillaribus terminalibusque, floribus oppositis secundis.

Cassida lateriflora. Mæench. Meth.

Hab. in America boreali: ad fossas et margines aquarum a Novo Eboraco Torrey! ad oram boreali-occidentalem Douglas! Scouler! et a Canada! ad Carolinam Wray! et Novum Aurelianum Drummond! (*h. s. sp.*)

Caulis pedalis, ramosissimus, ramis tetragonis uti tota planta glaberrimis. Folia 1-2-pollicaria, superiora gradatim minora. Racemi laterales graciles, numerosi, foliis floralibus parvis; terminales elongati, foliis floralibus infimis caulinis conformibus. Flores pedicellati parvi. Calyx glaber, campanulatus, fructifer clausus, squama brevi obtusa. Corolla cœrulea, vix 3 lin. longa, basi recta (nec infra gibbosa), tubo subæquali parum incurvo, fauce non dilatata, lobis rectis subæqualibus, supremo vix fornicato cæteris paullo brevioribus, lateralibus ovatis, infimo sublongiore dilatato convexo. Stamina labio superiore paullo breviora. Antheræ nudæ, inferiores ut in genere abortu uniloculares, superiores biloculares, loculis subparallelis. Gynobasis æqualis, recta, apice attenuata. Ovaria vix obliqua. Stylus apice breviter bifidus, stigmatibus complanato-dilatatis subæqualibus, fere ad basin loborum attingentibus. Achenia tuberculoso-rugosa.

Species dubia.

S. compressa (Arth. Hamilt. Monogr. 29).

Hab. in Sibiriae montibus Boughtarmen Patrín (Arth. Hamilton.)

“Caules et folia glabra, rigida. Folia lanceolata, obtusa, serrata, subsessilia.

Fructi dense spicati, rhachi pilosa. Pedicelli valde compressi, longitudine labii inferioris calycis quod solum in exemplari suppetente persistit."—*Arth. Hamilt. l. c.*

Probably no *Scutellaria* at all.

Species e genere excludendæ.

S. CRETICA Linn. = *Teucrium Arduini*.

S. JAPONICA Burm. = *Plectranthus menthoides* cum *Melissa parviflora*.

LVIII. PERILOMIA.

Perilomia. Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 326.

Calyx campanulatus, bilabiatus; labia integra, post anthesin clausa, demum usque ad basin fissa, superius squama brevi auctum, deciduum, inferius persistens. Corolla tubo longe exserto, recurvo-adscendente, intus nudo, fauce subdilatata, limbo brevi subbilabiato, labio superiore suberecto emarginato-bifido, inferiore trifido, lobis lateralibus brevibus subpatentibus, medio majore patente emarginato. Stamina 4, adscendentia, didynama, inferioribus longioribus. Antheræ per paria approximatae, glabræ? staminum inferiorum dimidiatae, superiorum biloculares. Styli lobus superior brevissimus, inferior apice stigmatifer. Ovarium subsessile, disco crasso latere inferiore sæpius dente obtuso aucto. Achenia sicca, margine membranaceo-alata.—Herbæ vel frutices. Flores axillares, solitarii. Folia floralia caulinis subconformia.

A South American genus, differing from *Scutellaria* in the form of the limb of the corolla, and in the winged achenia.

1. *P. SCUTELLARIOIDES* (Humb. et Kunth. ! Nov. Gen. et Sp. Amer. 2. 327. t. 157), glabra, foliis petiolatis ovatis basi rotundatis subcordatisve, paniculæ ramorum floralibusque parvis, racemis gracilibus, floribus secundis, corollis calyce glabro vix triplo longioribus.

Hab. in Peruvia *Jos. de Jussieu* ! (v. s. sp. in herb Vahl. ex herb. Jussieu.)

Caules videntur volubiles, glabri, acute tetragoni, subalati. Folia sesquipollicaria, apice breviter acuminata, grosse crenata, subtus venosa, superiora uti floralia acuta, vix 2-3 lin. longa, basi angustata. Panicula fere *Euphrasie odontitis*, ramis gracilibus simplicibus 3-4-pollicaribus. Flores oppositi, versus apices ramorum approximati, vix majores quam flores *Scutellariæ minoris*. Calyx supra gibbus vel brevissime squamatus, omnino glaber. Corolla coccinea? extus rufo-villosa *P. ocy-moide* minor, cæterum ei conformis. Achenia acuta, tuberculosa, anguste quadrialata alis denticulatis.

2. *P. OCYMOIDES* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 328), glabra vel vix pubescens, foliis petiolatis ovatis crenatis basi rotundato-truncatis, floralibus conformibus gradatim minoribus, racemis elongatis, corollis calyce pubescente quadruplo quintuplove longioribus.

Hab. in Peruvia : in locis siccis prope Alausi Quitensium *Humboldt et Bonpland* ! prope Obrajillo *Cruikshanks* ! ad Cuesta de Purrochuca

Mathews! (*h. s. sp. comm. a cl. Cruikshanks, et v. s. sp. in herb. Mus. Par. &c.*)

Caules basi suberecti, ramosi. Rami elongati, divaricati, acute tetragoni vel subalati, glabri vel apice et ad nodos leviter pubescentes. Folia $\frac{1}{2}$ -1 $\frac{1}{2}$ -pollicaria, in var. α acutiora, et supra subtusque ad nervos hispidula; in var. β glabra, in utraque varietate utrinque viridia. Racemi subsimplices, terminales, $\frac{1}{2}$ -1-pedales. Verticillastri omnes distantes. Folia floralia inferiora caulinis conformia et flores superantia, suprema parva. Bracteae parvae, lineari-subulatæ, interdum nullæ. Calyx nutans, breviter pedicellatus. Corolla coccinea, 7-8 lin. longa, recurvo-adscendens, extus villosissima.

3. *P. FRUTICOSA* (Schiede et Deppe in Linnæa 5. 102).

Hab. in Mexico: in dumetis Jalapæ et Serro Colorado *Schiede et Deppe.*

“Rami teretiusculi, juniores cum petiolis et nervis foliorum in inferiori pagina tenuissime adpresse pubescentes. Folia ovata ellipticave, acuminata, grosse inæqualiter serrata subintegerrimaque, membranacea, glabrescentia, pilis subtus et in margine sparsis, discolora, lamina in aliis speciminibus 4-pollicari, in aliis pollicari, petiolo tertiam circiter laminæ partem longus. Racemi pauci-3-9-flori, oppositiflori, pedunculati, terminales axillaresque, oppositi. Pedunculus proprius sesquilinearis. Calyx generis glabriusculus, 2 lin. circiter longus. Corolla speciosa, coccinea, longe tubulosa, 15 circiter lin. longa, valde arcuata, limbo valde obliquo. Genitalia conspicua, dorsalis inferioris tubi pars extus tenuissime pubescens. Fructus non visus.”—*Cham. et Schlecht. in Linn. l. c.*

4. *P. TOMENTOSA*, foliis ovatis supra pubescentibus subtus albotomentosis, corollis calyce villosolano subtriplo longioribus.

Hab. in Mexico *Moçino et Sessé!* (*h. s. sp. in herb. Lambert.*)

Habitus *P. ocymoides*, sed ramis foliorum pagina inferiore calycibusque tomento denso albido vestitis diversa. Flores parum minores. Ramus in specimine basi durus: an lignosus?

Species omnino dubia.

P. DUBIA (Spreng. Syst. 2. 704).

Hab. in Brasilia *Sello (Sprengel.)*

“*P. foliis ovato-oblongis acutis serratis, calycibus fructibusque pubescentibus.*”—*Spr. l. c.*

TRIBUS VII. PROSTANTHEREÆ.

CALYX campanulatus nunc bilabiatus, labiis planis integris vel inferiore bidentato bifidove, nunc æqualis, 5-dentatus; faux intus nuda. Corolla tubo brevi amplo, fauce campanulata, limbo bilabiato, labiis subplanis, superiore emarginato vel bifido, inferiore trifido. Stamina 4, didynama, corolla breviora, inferioribus nunc longioribus nunc abortivis. Achenia coriacea, reticulato-rugosa, stylo subpersistente.

This tribe consists entirely of a group of Australian plants, very similar to each other in habit, although the characters by which they are collectively separated from other tribes are difficult to express. The first four genera are allied to *Scutellaria* by the calyx, but differ in the form of the corolla; *Westringia* and *Microcorys* have the calyx, and nearly the corolla, of *Satureineæ*, but differ from that tribe, and are allied to *Nepeteæ* by the prevalence of the upper over the under stamina,—the latter of which are sterile instead of the former, as in the diandrous *Satureineæ*. *Hemigenia* has the stamina of *Hemiandra*, with the calyx of *Westringia*, and certainly cannot be removed from the tribe. The *Prostanthereæ* are, moreover, allied to *Ajugoidæ* by the reticulate-rugose achenia; and, like some of that tribe, are distinguishable from the remainder of the order, and approaching *Verbenaceæ*, by the ovarium being less deeply cleft, and the semipersistent style.

LIX. CHILODIA.

Chilodia. Br. Prod. 507.

Calyx campanulatus, tubo brevi 13-striato, bilabiatus, labio superiore integerrimo, inferiore emarginato, fauce intus nuda. Corolla tubo amplo brevi, limbo campanulato-subbilabiato, labio superiore erecto subplano emarginato-bifido, inferiore trifido, lobo medio majore bifido, omnibus planis, patentibus. Stamina 4, subæqualia, tubo breviora. Filamenta glabra nuda. Antheræ biloculares, loculis parallelis glabris nudis muticis. Stylus apice breviter bifidus, lobis subæqualibus, apice stigmatiferis.—Frutex habitu *Prostantheræ*.

1. C. SCUTELLARIOIDES (Br. l. c.)

Prostanthera empetrifolia. Sieb. ! Pl. Nov. Holl. Exs. No. 187.

Hab. in Nova Hollandia ad Portum Jackson R. Brown ! Sieber ! ibidem rarius prope fluvium Nepean A. Cunningham ! (v. v. c. et h. s. sp.)

May 1834.

Frutex ramis glabris vel tenuiter pubescentibus. Folia perennantia, sessilia, vix semipollicaria, linearia vel sub lanceolata, acuta, integerrima, margine sub-revoluta, utrinque viridia, glabra, lævia vel juniora subtus tenuissime pubescentia. Floralia conformia, flores superantia. Pedicelli axillares, uniflori, sub calyce bibracteati, bracteis parvis subulatis. Calyx viridis, glaber, basi striatus, labiis membranaceis patentibus vix venosis, inferiore margine tenuissime ciliato. Corolla calycem breviter excedens, cœrulea, glabra.

LX. CRYPHIA.

Cryphia. *Br. Prod.* 508.

“Calyx bilabiatus bibracteatus clausus; labiis integris æqualibus. Corolla inclusa, ringens, galea brevissima, labii inferioris lacinia media parum majore. Antheræ muticæ.—Fruticulus glandulosus graveolens. Folia parva, integra (Serpylly). Pedunculi axillares, solitarii, uniflori.

“Media inter *Chilodiam* et *Prostantheram*.”—*Br. l. c.*

1. *C. SERPYLLIFOLIA* (*Br. l. c.*).

Hab. in Nova Hollandia ad oram meridiionalem *R. Brown*.

“*C. foliis oblongo-linearibus planiusculis, calycibusque glabris fructiferis pedunculo vix longioribus, ramulis glabriusculis, pube tenuissima appressa.*”—*Br. l. c.*

2. *C. MICROPHYLLA* (*Br. l. c.*).

Hab. in Nova Hollandia ad oram meridiionalem *R. Brown*.

“*C. foliis ovalibus convexis minutissimis fasciculatis, calycibusque pubescentibus fructiferis pedunculo aliquoties longioribus, ramulis pubescentibus, pube patenti curvata.*

“*Præcedenti nimis affinis et forsitan ejusdem varietas.*”—*Br. l. c.*

LXI. PROSTANTHERA.

Prostanthera. *Labill. Fl. Nov. Holl.* 2. 18. *Br. Prod.* 508.

Calyx campanulatus, tubus brevis 13-striatus, labia indivisa fructus clausa, fauce intus nuda. Corolla tubo brevi amplo, fauce campanulata, limbo bilabiato, labio superiore erecto subplano emarginato-bifido, inferiore patente trilobo, lobo medio majore, integro vel bifido. Stamina 4, adscendentia, vix didynama, inferioribus sublongioribus. Filamenta glabra, nuda. Antheræ omnes approximatae biloculares, loculis parallelis connectivo subtus calcarato. Stylus apice breviter bifidus, lobis subæqualibus, apice stigmatiferis. Achenia nucamentacea subbaccata, siccitate coriacea, reticulato-rugosa. Albumen nullum vel parvum.—Frutices glandulis sessilibus conspersi, graveolentes. Folia opposita. Flores nunc racemosi terminales foliis floralibus caducis nunc ad axillas foliorum caulinis conformium solitarii. Bractæe sub calyce parvæ. “Antherarum calcaria e puncto insertionis orta, in diversis diversa, sæpius bina per lobos respondentis, descendencia iisque infra adnata; altero brevioris quandoque deficiente utriusque apice

cristato."—*Br. l. c.* Odor omnium partium, etiam in planta sicca, fortis aromaticus.

CONSPECTUS SPECIERUM.

Calyces glabri. Ramuli glabri vel albo-tomentosi.

Folia ovata vel lanceolata, sæpius dentata.

Folia oblongo-lanceolata, serrata.

Corollæ villosæ 1. *P. LASIANTHOS.*

Corollæ glabræ 2. *P. CÆRULEA.*

Folia ovata vel ovato-oblonga, integra, crenata vel subincisa.

Folia crassa, ovata vel orbiculata, integerrima vel crenata.

Folia margine revoluta 21. *P. THYMIFOLIA.*

Folia (minuta) recurvo-reflexa 18. *P. MICROPHYLLA.*

Folia plana.

Folia pollicaria. Caulis anguli subdenticulati. Racemi laxi 5. *P. PRUNELLOIDES.*

Folia parva. Caules vix angulati.

Folia ovata.

Racemi densi 6. *P. OVALIFOLIA.*

Racemi laxi 7. *P. ATRIPLICIFOLIA.*

Folia subrotunda vel spathulata.

Flores axillares. Calycis labium inferius retusum 9. *P. RETUSA.*

Flores racemosi. Calycis labia integerrima.

Racemi breves, densi.

Folia crenata 10. *P. ROTUNDIFOLIA.*

Racemi elongati laxi.

Folia integerrima, emarginata 8. *P. COTINIFOLIA.*

Folia tenuia, ovali-oblonga, basi longe angustata, subincisa.

Calycis labium inferius superiore angustius et duplo longius 3. *P. INCISA.*

Calycis labia subæqualia 4. *P. SIEBERI.*

Folia linearia vel lanceolata, integerrima vel minute denticulata.

Calycis labium superius tridentatum 15. *P. CRYPTANDROIDES.*

Calycis labium superius integerrimum.

Folia tuberculoso-denticulata 14. *P. DENTICULATA.*

Folia integerrima.

Calycis labium inferius superiore dimidio minus.

Ramuli virides 11. *P. NIVEA.*

Ramuli albo-tomentosi 12. *P. BAXTERI.*

Calycis labia subæqualia.

Folia subpollicaria, margine vix recurva, floralia minuta 13. *P. LINEARIS.*

Folia 3-6-linearia, crassa, floralia conformia 19. *P. SAXICOLA.*

Folia 1-2-linearia, subteretia, fasciculata 16. *P. ASPALATHOIDES.*

Calyces et ramuli villosi vel pubescentes.

Folia integerrima vel denticulata.

Folia glabra.

Folia linearia, margine revoluta, tuberculoso-denticulata 14. *P. DENTICULATA.*

Folia rhombeo-ovata, 3-4-linearia, margine revoluta 25. *P. RHOMBEA.*

- Folia oblonga, 1-2-linearia, margine revoluta . . . 17. *P. CALEYI*.
 Folia oblonga vix linearia, recurvopatientia . . . 18. *P. MICROPHYLLA*.
 Folia pilosa.
 Folia ovato-vel elliptico-lanceolata, hispida 20. *P. MARIFOLIA*.
 Folia linearia vel oblonga, pilosiuscula 19. *P. SAXICOLA*.
 Folia crenata.
 Calycis labia integra.
 Calycis labium inferius superiore angustius et duplo longius.
 Corollæ violaceæ. Folia hispida . 22. *P. VIOLACEA*.
 Corollæ albæ. Folia subglabra . 21. *P. THYMIFOLIA*.
 Calycis labia subæqualia . 23. *P. INCANA*.
 Calycis labium superius subtridentatum, inferius emarginatum . 24. *P. RUGOSA*.

1. *P. LASIANTHOS* (Labill. ! Pl. Nov. Holl. 2. 18. t. 157), fruticosa, foliis oblongo-lanceolatis dentato-serratis glabris, racemis paniculatis, corollis utrinque hirsutis, antherarum calcare longiore loculum superante, brevior loculo æquilongi adnato.

P. lasianthos. *Bot. Rep.* 10. t. 641. *Bot. Reg.* 2. t. 143. *Bot. Mag.* 50. t. 2434.

Hab. in Australia ad Portum Jackson ! et in Terra Van Diemen ! (*h. s. sp.*)

Frutex orgyalis, ramis glabriusculis. Folia perennantia, breviter petiolata, 2-3-pollicaria, irregulariter acute denticulata, utrinque viridia, floralia ramorum paniculæ subconformia minora, sub floribus minuta subnulla. Racemi breves, in panicula oblonga 4-6-pollicari approximati. Flores oppositi, breviter pedunculati. Bracteæ ad apicem pedunculi subulatæ, in calycem adpressæ, et eum subæquantes. Calyx tenuiter pubescens, fructifer apertus, labiis subæqualibus. Corolla ampla, extus dense villosa. Antheræ omnes conformes, loculis parallelis, exteriori submutico, interiori filamento loculum æquante calcarato.

2. *P. CÆRULEA* (Br. Prod. 508), fruticosa, foliis lanceolatis dentato-serratis glabris, racemis subpaniculatis parum divisis, corollis extus imberbibus, antherarum calcaribus subæqualibus adnatis loculum vix superantibus.

Hab. in Nova Hollandia ad Portum Jackson *R. Brown, Caley !* ibidem in umbrosis *A. Cunningham !* ad flumen Wollondelly *Herb. Hooker !* (*v. s. sp. in herb. Hooker, Lambert, et Cunningham.*)

Habitus *P. lasianthi*. Folia plerumque angustiora. Racemi inferiores axillares folio plerumque breviores, superiores in panicula brevi laxa dispositi. Calyces breviter pedicellati. Corolla glabra, magnitudine fere *P. lasianthi*.

3. *P. INCISA* (Br. Prod. 509), ramulis glabriusculis, foliis ovato-oblongis basi angustatis dentatis incisive glabris utrinque glandulosis, racemis paucifloris, calycis labio inferiore angustiore duplo longiore, calcaribus æqualibus adnatis loculo brevioribus.

Hab. in Nova Hollandia ad Portum Jackson *R. Brown, Caley !* (*v. s. sp. in herb. Endlicher et Lambert.*)

Ramuli tenues, virides, sæpe alis angustissimis marginati. Folia $\frac{1}{2}$ - $\frac{3}{4}$ -pollicaria, subtus pallida ; floralia infima parva, subconformia, suprema nulla vel decidua. Verticillastri 3-6, ad apices ramulorum biflori. Pedicelli filiformes. Bracteæ tenuissimæ. Calycis labium inferius breve, orbiculatum, superius oblongum, obtusum. Corolla calyce duplo longior, fere glabra. Racemi graciliores quam in *P. Sieberi*.

4. *P. SIEBERI*, ramulis glabriusculis, foliis ovato-oblongis incisodentatis basi longe angustatis glabris, racemis laxis paucifloris, calycis labiis æqualibus, antherarum calcaribus æqualibus adnatis loculo brevioribus.

P. incisa. Sieb. *Fl. Nov. Holl. Exs.* 189. non Br.

Hab. in Nova Hollandia Sieber! in umbrosis ad latus montis Illawarra et alibi secus oram a Portu Jackson versus meridiem A. Cunningham! (*h. s. sp. comm. a cl. Requien, et v. s. sp. in herb. plur.*)

Frutex sexpedalis. Ramuli elongati, rigidiusculi, tenues, virides, sæpius alis 4 angustissimis marginati. Folia patentia, longe petiolata, limbo fere pollicari, utrinque glandulis subexsertis induta, subtus pallidiora. Floralia minora, suprema minuta. Verticillastri 3-4, ad apices ramulorum biflori. Pedicelli filiformes. Bracteæ tenuissimæ, laxæ. Calyces glabri, basi attenuati vix striati, labiis orbiculatis, membranaceis, inferiore vix angustiore, nec longiore. Corollam apertam non vidi. Valde affinis *P. incisæ*, sed calycibus constanter diversa.

5. *P. PRUNELLOIDES* (Br.! Prod. 508), foliis crassis ovatis integris vel grosse dentatis glabris, floralibus bracteæformibus deciduis, racemis terminalibus subpaniculatis, corollis extus hirsutis, antherarum calcare longiore loculum bis superante.

Hab. in Australia ad Portum Jackson R. Brown! frequens in collibus saxosis ad fluvium Hunter, A. Cunningham! (*v. s. sp. in herb. Delessert, Endlicher, et Cunningham.*)

Rami virides, tetragoni, glandulosi, angulis hinc inde denticulatis. Folia petiolata, pollicaria et ultra, obtusa vel acutiuscula, basi rotundata vel cordata, utrinque præsertim juniora densissime glandulis obsessa; floralia parva, membranacea, obtusa, ciliata, ante anthesin sæpe decidua. Racemi ramis utrinque 1-2 aucti, 3-4-pollicares. Flores oppositi, fere *P. lasianthi*. Pedicelli erecti, tubum calycis æquantes. Calyces demum nutantes, glandulosi, basi profunde striati, labiis membranaceis, superiore integro, inferiore brevior, sæpe retuso vel emarginato. Corolla calyce duplo longior, extus villosa.

6. *P. OVALIFOLIA* (Br.! Prod. 509), ramulis tenuiter pubescentibus, foliis ovalibus glabris integris passimque paucicrenatis, racemis abbreviatis terminalibus axillaribusque, calycibus glabris glandulosis, antherarum calcaribus æqualibus loculo æquilongis adnatis.

Hab. in Nova Hollandia ad oram orientalem intratropicam R. Brown! in interiore boreali-occidentali Fraser! (*v. s. sp. in herb. DC. et Hooker.*)

Suffrutex humilis, ramis tetragonis pubescentibus. Folia breviter petiolata, 4-6 lin. longa, obtusissima, basi subangustata, crassiuscula, subavenia. Floralia plerumque conformia, minora. Racemuli vix pollicem longi, subramosi, dense pauciflori. Pedunculi breves. Pedicelli calyce breviores. Bracteæ minutæ, calyci adpressæ. Calyces basi profunde striati, labiis vix membranaceis crassiusculis enerviis latis, inferiore sublongiore.

7. *P. ATRIPLICIFOLIA* (Cunningh.! MSS.), ramulis tomentosis, foliis ovato-oblongis integerrimis glabris, racemis laxis terminalibus, calycibus glabris, antherarum calcaribus æqualibus loculo æquilongis adnatis.

Hab. in Nova Hollandia interiore: in collibus aridis sterilibus ad fluvium Lachlan A. Cunningham! (*v. s. sp. in herb. Cunningham.*)

Frutex densus, odoratissimus. Rami vix tetragoni, cano-tomentosi. Folia

breviter petiolata, 4-6 lin. longa, angustiora quam in *P. ovalifolia*, crassiuscula, basi angustata, obscure univenia. Floralia parva, bracteæformia, vel infima caulinis subconformia. Racemi 1-2-pollicares, graciles, pauciflori. Pedunculi calyce vix breviores. Calyces glandulosi, labiis brevibus latis, inferiore parum longiore. Corolla purpurea. *P. ovalifolia* valde affinis, at distincta.

8. *P. COTINIFOLIA* (Cunningh. ! MSS.), ramis tomentosis, foliis orbiculatis crassiusculis glabris integerrimis apice retusis emarginatisve, racemis elongatis, calycis labiis integerrimis.

Hab. in Nova Hollandia interiore : in sterilibus rupestribus ad occidentem vallis Wellington *A. Cunningham !* (v. s. sp. in herb. *Cunningham*.)

P. rotundifolia valde affinis, a qua differt ramis tomentosioribus, foliis (in speciminibus suppetentibus) nunquam crenatis basi potius rotundatis quam cuneatis et apice sæpe profunde emarginatis, et racemis terminalibus 2-3-pollicaribus, floribus distantibus. Calycis labium inferius superiore dimidio angustius et parum longius. Corollæ desunt.

9. *P. RETUSA* (Br. Prod. 509).

Hab. in Terra Van Diemen *R. Brown*.

“ *P. foliis orbiculatis crenatis glabris utrinque glandulosis, floribus axillaribus, calycis labio inferiore retuso calcare lobum vix superante.*”—*Br. l. c.*

An revera a *P. rotundifolia* distincta ?

10. *P. ROTUNDIFOLIA* (Br. ? Prod. 509), ramulis tomentosis, foliis orbiculatis spathulatisve crassiusculis glabris integris crenatisve, floribus subracemosis, calycis glabri labiis integerrimis, antherarum calcaribus æqualibus loculo brevioribus adnatis.

Hab. in Terra Van Diemen *R. Brown ? Gunn ! &c. (h. s. sp.)*

Folia vix 3-4-linearia, apice obtusissima, pauci-crenata, basi cuneata et in petiolum brevem angustata, subavenia vel subtus 1-nervia. Racemi breves, terminales, subsecundi, simplices vel compositi. Calyces pedicellati, declinati, basi striati, glabri, labio superiore latiore, inferiore vix longiore integerrimo. Corolla ampla, calyce plus duplo longior, extus glabriuscula, lobis labii inferioris maximis. Stamina vix e fauce exserta. Calcaria omnino adnata et vix obvia.

11. *P. NIVEA* (Cunningh. ! MSS.), glaberrima, foliis linearibus integerrimis margine revolutis lævibus, racemis laxis terminalibus, calycibus glabris, labio superiore maximo inferiore dimidio brevior ciliato, antherarum calcare altero loculum bis superante, altero loculo brevior adnato.

Hab. in Novæ Hollandiæ interioris montibus saxosis sterilibus *A. Cunningham !* (v. s. sp. in herb. *Cunningham et Hooker*.)

Frutex elegans tripedalis. Rami virgati, ramosissimi, ramulisque glaberrimis lævibus teretibus, vel sub axillis compressis. Folia sessilia, $\frac{1}{2}$ -1-pollicaria, crassiuscula, marginibus revolutis subteretia, floralia subconformia. Racemi numerosi, pauciflori. Verticillastri axillares, biflori, distantes, subsecundi. Pedicelli tenues. Bracteæ minutissimæ, subnullæ. Calycis tubus lineam longus, profunde striatus, labium superius 3 lin. diametro, orbiculatum, membranaceum, reticulato-venosum, margine nudum, inferius adpressum calycem claudens, vix sesquilineam latum. Corolla nivea calyce duplo longior, extus pubescens.

12. *P. BAXTERI* (Cunningh. ! MSS.), ramis albo-tomentosis, foliis linearibus integerrimis margine revolutis lævibus glabris, floribus subaxillaribus, calycibus sericeo-tomentosis, labio superiore maximo, inferiore brevior.

Hab. in Nova Hollandia ad King George's Sound *Baxter* ! (v. s. sp. in herb. *Hooker*.)

Ramuli numerosi, lignosi, rigidi, teretes, uti calyces pilis albis sericeis adpressis obtecti. Folia semipollicaria, subpaniculata, enervia, margine revoluta, teretia, obtusa, basi attenuata. Flores ad axillas foliorum floralium caulinis conformium breviter pedunculati, ramis floriferis apice excurrentibus foliosis. Calyx forma *P. niveæ*, at labia crassiora, venis sub tomento reconditis. Corollam non vidi.

13. *P. LINEARIS* (Br. ! Prod. 509), glaberrima, foliis linearibus integerrimis glabris lævibus margine subrecurvis, racemis terminalibus, calycibus glabris tenuissime ciliatis, antherarum calcare longiore loculum bis superante.

Hab. in Nova Hollandia ad Portum Jackson *R. Brown*, *Caley* ! in rupestribus ad Springwood et alibi *A. Cunningham* ! (v. s. sp. in herb. *DC. Delessert, Lambert, et Cunningham*.)

Frutex elatus, glaberrimus, ramis virgatis, tetragonis. Folia subpollicaria, subsessilia, obtusa, uninervia, subtus pallida, floralia breviora, suprema minuta. Verticillastri biflori, remoti, in racemis laxis terminalibus dispositi. Bracteæ lineares, breves. Calyces breviter pedunculati, basi striati, glabri, labiis ovatis membranaceis subæqualibus bracteisque sæpius tenuiter ciliatis, interdum nudis. Corolla calyce paullo longior, extus pubescens, fauce intus pilosa. Styli lobi breves, rotundati, stigmatibus crassiusculis.

14. *P. DENTICULATA* (Br. Prod. 509), ramulis tenuiter pubescenti-scabris, foliis linearibus integris glabris subtus glandulosis supra juxta marginem recurvum tuberculoso-denticulatis, calycibus ciliatis pilosiusculis, antherarum calcare longiore loculum subsuperante.

Hab. in Nova Hollandia ad Portum Jackson *R. Brown*, in montibus prope Bathurst versus occidentem *A. Cunningham* ! (v. s. sp. in herb. *Cunningham*.)

Frutex habitu fere *Westringiæ*. Rami subteretes, pubescentia tenui viscosa ? induti. Folia sessilia, rigida, acuta, lucida, pilis brevibus paucis rigidis e tuberculo ortis hinc inde in pagina superiore quasi denticulata ; floralia breviora basi membranaceo-dilatata. Flores breviter pedicellati, in racemis laxis secundis terminalibus dispositi. Calycis labia integerrima, inferiore minore. Corolla calyce vix duplo longior.

15. *P. CRYPTANDROIDES* (Cunningh. ! MSS.), glabra, foliis lanceolatis linearibusve obtusis integerrimis vel denticulatis ad axillas fasciculatis, floralibus conformibus, floribus paucis axillaribus, calycis glabri labio superiore tridentato, antherarum calcare longiore loculum bis superante.

Hab. in Nova Hollandia : in rupibus ad fluvium Hunter *A. Cunningham* ! (v. s. sp. in herb. *Cunningham*.)

Frutex humilis, glandulosus, subviscosus, glaber vel pilis brevissimis raris conspersus. Folia vix 2-3-linearia, plerumque integerrima vel in ramis, præsertim sterilibus, utrinque denticulis 2-3 brevissimis obtusis notata. Flores secus ramos axillares subsessiles, axillis superioribus sterilibus. Bracteæ foliaceæ, calycem subæquantes. Calyx striatus, labio superiore recurvo-patente obtuse tridentato, dente medio lateralibus majore, labium inferius integerrimum, superiore angustius, inflexum. Corolla calyce plus duplo longior.

16. *P. ASPALATHOIDES* (Cunningh. ! MSS.), ramis pubescentibus, foliis parvis linearibus integerrimis margine revolutis glabriusculis fasci-

culatis, floralibus conformibus, floribus paucis axillaribus, calycis glabri subsessilis labiis subæqualibus integerrimis.

Hab. in Nova Hollandia interiore: in collibus aridis sterilibus ad fluvium Lachlan *A. Cunningham!* (v. s. sp. in herb. *Cunningham*.)

Fruticulus humilis, decumbens. Ramuli pilis brevibus glutinosis pubescentes. Folia 1-2 lin. longa, ad axillas conferta, subteretia, juniora pilis brevissimis raris conspersa. Calyces 3-4 lin. longi, subsessiles, basi substriati, labiis membranaceis subcoloratis. Corolla coccinea, extus fere glabra, calyce plus duplo longior.

17. *P. CALEYI*, ramis pubescentibus, foliis parvis ovato-ellipticis obtusis margine revolutis ad axillas fasciculatis vix pubescentibus, floralibus conformibus, floribus paucis axillaribus, calycis pubescentis pedunculati labiis integerrimis, antherarum calcare longiore loculum subæquante.

Hab. in Nova Hollandia *Caley!* (v. s. sp. in herb. *Lambert*.)

Affinis *P. aspalathoidi*, sed characteribus datis distincta. Folia 1-2-linearia, convexa. Pedunculus calyce longior. Corolla calycem vix excedens.

18. *P. MICROPHYLLA* (*Cunningh.!* MSS.), ramis glabriusculis, foliis parvis crassis oblongis obtusis integerrimis patenti-recurvis glabris, floralibus conformibus, floribus paucis axillaribus, calycis pubescentis labiis subæqualibus integerrimis, antherarum calcaribus adnatis, longiore loculum vix superante.

Hab. in Nova Hollandia interiore in deserto prope fluvium Lachlan *A. Cunningham!* (v. s. sp. in herb. *Cunningham*.)

Fruticulus humilis, ramosissimus, ramis abbreviatis. Folia numerosa vix lineam longa, crassa, subavenia, floralia et bracteæ conformia. Calyces 2½-3-lineares, pubescentia brevi adpressa canescentes, basi vix striati. Corolla coccinea? calyce vix duplo longior, extus pubescens. Antheræ potius mucronatæ quam calcaratæ videntur (calcaribus nempe loculo omnino adnatis apice non penicillatis.)

19. *P. SAXICOLA* (*Br. Prod. 509?**), foliis lineari-oblongis integerrimis crassis junioribus pilosiusculis, floralibus conformibus flores superantibus, floribus axillaribus, calycibus apice hirsutis, antherarum calcare longiore loculum bis superante.

Hab. in Nova Hollandia: in rupibus prope Bathurst ad occidentem montium Cœruleorum *A. Cunningham!* prope Portum Jackson *R. Brown?* (v. s. sp. in herb. *Cunningham*.)

Frutex gracilis. Rami virgati uti folia pilis brevissimis adpressis oculo nudo vix conspicuis conspersi. Folia sessilia, 3-6-linearia, obtusa, crassa, subavenia; floralia caulinis æquilonga. Flores secus apices ramorum axillares, vix racemum formantes. Pedicelli breves, tenues. Bracteæ lineares, adpressæ. Calyx junior apice dense hirsutus, demum glabratus. Corolla calyce duplo longior, extus pubescens.

This seems to differ from Mr. Brown's character in several particulars; yet, if these be the only points of distinction, they are scarcely of importance enough to constitute a different species.

20. *P. MARIFOLIA* (*Br. Prod. 509*), ramis hirsutis, foliis ovato-vel elliptico-lanceolatis integerrimis margine revolutis utrinque hispidis,

* " *P. foliis lineari-oblongis ovalibusque integerrimis, pilosiusculis, racemo foliato paucifloro, calycibus hirsutis, labiis integerrimis subæqualibus, calcare lobum bis superante, caule diffuso basi suffruticoso.*" — *Br. l. c.*

floribus axillaribus subracemosis, calycibus hirsutis, labiis subæqualibus, inferiore retuso, antherarum "calcare loculum paullo superante."

Hab. in Nova Hollandia ad Portum Jackson *R. Brown*, ibidem in rupestribus sterilibus, et in montibus Cœruleis *A. Cunningham*! (*v. s. sp. in herb. Cunningham.*)

Caulis ex specimine suppetente herbaceus videtur, sec. *R. Brown* suffruticosus. Rami virgati, parum ramosi, 1-1½-pedales. Folia distantia, subsessilia, 2-4 lin. longa, pilis albidis rigidis, uti calyces et ramorum pars superior hispida; floralia calyces subæquantia. Flores versus apices ramorum pauci. Calyces apice cœrulescentes. Corollæ calyce parum longiores.

21. *P. THYMIFOLIA* (*Cunningh.!* MSS.), ramulis tenuissime pubescentibus, foliis ovato-subrotundis pauci-crenatis margine recurvis glabris, floribus breviter racemosis, calycis subglabri labiis integerrimis, antherarum calcaribus æqualibus loculo brevioribus adnatis.

P. retusa. Sieb.! *Fl. Nov. Holl. Exs. non Br.*

Hab. in Nova Hollandia *Sieber!* cum *P. violacea* ad Springwood prope Portum Jackson *A. Cunningham!* (*h. s. sp. comm. a cl. Requier, et v. s. sp. in herb. Cunningham.*)

Rami divaricati vix tetragoni, juniores pubescentia brevissima glandulosa tenui canescentes, laxè foliosi. Folia breviter petiolata, vix 1-2-linearia, glabra vel infra ad nervum pilis paucis brevibus ciliata; floralia minuta, decidua. Flores ad apices ramulorum 4-8, in racemum brevissimum approximati. Pedicelli breves. Calyx *P. violaceæ*, sed glaber vel pilis brevissimis paucis ad strias ciliatus. Corolla alba, glabra, calycem breviter superans. Affinis *P. violaceæ* var. β , et forsàn ejus varietas, sed glabritie, foliis minoribus, et floribus albis, distincta videtur.

22. *P. VIOLACEA* (*Br. Prod. 509*), foliis subrotundis crenatis margine revolutis utrinque ramisque pubescenti-hirtis, racemis paucifloris densis, calycibus pubescenti-hirtis, labiis integerrimis, inferiore duplo longiore angustiore integerrimo, antherarum calcaribus æqualibus loculo subbrevioribus.

P. violacea. Bot. Reg. 13. t. 1072.

β glabrior, foliis minoribus.

Hab. in Nova Hollandia ad Portum Jackson *R. Brown*; β in siccis ad Springwood prope Portum Jackson ad ascensum montium Cœruleorum *A. Cunningham!* in montibus Cœruleis *Fraser!* (*v. s. sp. in herb. plur.*)

Rami divaricati, tetragoni, uti calyces et foliorum pagina inferior pilis rigidis glandulis intermixtis vestiti. Folia in var. α 3-4-linearia, in var. β vix 2 lin. longa, supra subbullata et tuberculato-rugosa pilis e tuberculis ortis, subtus pallidiora, nervosa; floralia parva, suprema minuta. Verticillastri 3-4, ad apices ramulorum in racemis brevibus approximati. Pedicelli breves. Bracteæ minutæ, adpressæ. Calyx fructifer vix 2 lin. longus, labio inferiore incurvo-concavo, adscendente, calycem subclaudente, et ideo, etsi superiori longius, vix eum excedit. Corolla calyce subduplo longior, lobo medio lato rotundato vix emarginato. Var. β intermedia inter hanc et *P. thymifoliam*.

23. *P. INCANA* (*Cunningh.!* MSS.), foliis ovatis obtusis crenatis bullato-rugosis utrinque ramulisque villosis-hispidis, racemis brevissimis densis, antherarum calcaribus æqualibus loculo brevioribus adnatis.

Hab. in Novæ Hollandiæ montibus Cœruleis *Fraser!* in rupibus ad junctionem fluviorum Nepean et Warragumba *A. Cunningham!* (*v. s. sp. in herb. Hooker et Cunningham.*)

June 1834.

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Frutex 5-6-pedalis, divaricato-ramosus. Rami juniores uti folia et calyces pilis albis patentibus e tuberculo ortis densissime villosa. Folia semipollicaria, brevissime petiolata, mollia, concoloria, supra bullata, margine reflexa et nervis subtus valde prominentibus. Glandulæ paginæ inferioris exsertæ, subpedicellatæ. Folia floralia minora, interdum subcolorata. Flores pauci, in racemis terminalibus subcapitatis approximati. Bracteæ subulatæ, adpressæ. Calyces subsessiles, labio inferiore vix productiore. Corolla purpurea calycem breviter superans, extus vix pubescens.

24. *P. RUGOSA* (Cunningh. ! MSS.), foliis ovato-rotundatis crenatis bullato-rugosis utrinque ramisque villosis-hispidis, floribus paucis axillaribus, calycis hispidi labio superiore subtridentato, inferiore emarginato, antherarum calcaribus loculo brevioribus.

Hab. in Nova Hollandia: in montosis præruptis ad fluvium Hunter *A. Cunningham !* (v. s. sp. in herb. *Cunningham.*)

Habitus et folia exemplarium hispidiorum *P. violaceæ*, sed inflorescentia et calyce distinctissima. Corollæ magnitudine corollarum *P. violaceæ*, extus glabriusculæ. Calycis labium superius breve latum, dentibus (vel crenis) brevibus latis obtusis, labium inferius longius angustius.

25. *P. RHOMBEA* (Br. ! Prod. 509), foliis rhombeo-orbiculatis integerrimis adultis supra nitidis subtus glandulosis, ramulis calycibusque pubescentibus, floribus axillaribus, antherarum calcaribus loculo brevioribus.

Hab. in Nova Hollandia ad Portum Jackson *R. Brown ! Caley !* (v. s. sp. in herb. *Delessert et Lambert.*)

Fruticulus ramis divaricatis vix tetragonis parce pilosis. Folia subsessilia, supra bullato-convexa, subtus uninervia, 2-4 lin. longa; floralia conformia. Flores axillares oppositi. Calyces breviter pedunculati hispidi, labiis integerrimis abbreviatis, superiore latiore. Corolla vix calycem excedens.

Species e genere excludendæ.

P. EMPETRIFOLIA Sieb. = *Chilodia scutellarioides*.

P. LINEARIS Sieb. = *Westringia longifolia*.

LXII. HEMIANDRA.

Hemiandra. Br. Prod. 502.

Calyx campanulatus, basi striatus, labiis planis fructus clausis, superiore integro mucronato, inferiore semibifido. Corolla tubo brevi amplo, fauce campanulata, limbo bilabiato, labiis planis patentibus, superiore bifido, inferiore trilobo, lobo medio emarginato. Stamina 4, laxè adscendentia, didynama, inferioribus longioribus. Filamenta glabra, nuda. Antheræ dimidiatæ loculo fertili adscendente, sterili tenui in filamentum descendente. Stylus apice subæqualiter bifidus, lobis subulatis, apice stigmatiferis.—Suffrutex habitu *Prostantheræ*.

1. *H. PUNGENS* (Br. l. c.)

Hab. in Novæ Hollandiæ ora meridionali *R. Brown*, ibidem in

arenosis *W. Baxter!* in collibus prope Swan River *Fraser!* (*v. s. sp. in herb. Hooker et Cunningham.*)

Suffrutex decumbens, rigidus, dense foliosus, ramis duris glabris vel basi pubescentibus. Folia sessilia, opposita, lanceolata, acutissima, pungentia, integerrima, glabra, rigida, subtus 1-3-nervia; floralia conformia calyces superantia. Flores in axillis solitarii. Pedunculi calyce breviores, apice bracteas 2 lanceolatas calycem subæquantes ferentes. Calyces glabri, labiis subæqualibus, superiore mucronato-pungente, inferioris lobis acutis; cætera *Prostantheræ*. Corolla *Prostantheræ*, calyce duplo longior, extus glabra, "alba, purpureo tincta vel punctata" (*R. Br.*) Achenia *Prostantheræ*. Odor plantæ siccæ nullus, nec ut in *Prostantheris* aromaticus.

LXIII. HEMIGENIA.

Hemigenia. *Br. Prod.* 502.

Calyx subcampanulatus, profunde 5-fidus, æqualis. Corolla tubo brevi, intus nuda fauce ampliata, limbo subbilabiato, labio superiore plano subbifido, inferiore patente trifido, lobo medio subbifido. Stamina 4, subadscendentia, didynama, inferioribus longioribus. Antheræ approximatae, loculo altero adscendente pollinifero, altero descendente difformi casso, superiorum subbarbato. Stylus apice brevissime bifidus. Achenia reticulato-rugosa.—Frutices habitu *Westringiæ* vel potius *Microcorydis*. Flores axillares, solitarii. Barba antherarum superiorum brevissima, cristæ calcarium *Prostantheræ* similis.

1. *H. PURPUREA* (*Br. Prod.* 502), foliis ternis, corollis calyce brevioribus.

Hab. in Nova Hollandia: ad Portum Jackson *R. Brown, A. Cunningham!* (*v. s. sp. in herb. Cunningham.*)

Fruticulus gracilis, ramis virgatis, foliosis, glabris. Folia sessilia, semipollicaria et longiora, linearia, acuta, subteretia, glabra; floralia conformia. Flores pauci, axillares, pedunculati, folio breviores. Bracteæ lineares, calyce breviores. Calyx glaber, laciniis angustis acutis. Corolla cæruleo-purpurea, extus glabriuscula, labio inferiore supra villosulo.

2. *H. SIEBERI*, foliis quaternis, corollis calyces superantibus.

H. purpurea. Sieb.! Fl. Nov. Holl. Exs. n. 191.

Hab. in Nova Hollandia: ad Portum Jackson *Sieber! Caley! A. Cunningham!* (*v. s. sp. in herb. plur.*)

Frutex rigidior et major quam *H. purpurea*. Folia crassiora, latiora, obtusiora, sæpius mucronulata. Calyces majores, etsi corolla breviores, laciniis lanceolatis. Corollæ labium inferius dense villosum.

LXIV. WESTRINGIA.

Westringia. *Sm. Br. Prod.* 501.

Calyx campanulatus, 10-nervius, æqualis, 5-dentatus, fauce intus nuda. Corolla tubo brevi, intus nuda, fauce ampliata, limbo subbi-

labiato, labio superiore plano bifido subpatente, inferiore patente trifido, lobo medio subbifido. Stamina 4, erecta, distantia, tubo corollæ inclusa; superiora fertilia, antheris dimidiatis unilocularibus glabris; inferiora sterilia, antheris bipartitis, lobis linearibus dependentibus cassis. Stylus apice subæqualiter bifidus, lobis subulatis, apice stigmatiferis. Achenia coriacea, reticulato-rugosa. — Frutices. Folia perennantia, ternatim vel quaternatim verticillata, integerrima; floralia conformia, axillis unifloris. Flores ternatim verticillati, nunc distantes nunc in racemo brevi terminali approximati. Bracteæ minutæ, calyci adpressæ.

CONSPECTUS SPECIERUM.

Folia quaterna.

Dentes calycini tubo dimidio breviores.

Folia floralia calyce subduplo longiora.

Folia lanceolata, subtus argentea .

Folia linearia, subtus cinerea .

Folia floralia calycem subæquantia .

Dentes calycini tubo sublongiores .

Folia terna.

Calyces cinerei vel sericeo-pubescentes.

Dentes calycini tubo dimidio breviores.

Folia supra cinerea .

Folia supra viridia.

Folia lineari-lanceolata .

Folia linearia .

Dentes calycini longitudine tubi .

Calyces glabri virides.

Folia margine recurva .

Folia plana .

. 1. *W. ROSMARINIFORMIS*.. 2. *W. DAMPIERI*.. 3. *W. BREVIFOLIA*.. 10. *W. RUBIÆFOLIA*.. 5. *W. CINEREA*.. 4. *W. RIGIDA*.. 6. *W. ANGUSTIFOLIA*.. 7. *W. EREMICOLA*.. 8. *W. LONGIFOLIA*.. 9. *W. GLABRA*.

1. *W. ROSMARINIFORMIS* (Sm. Tracts. 277. t. 3), foliis quaternis lanceolatis margine revolutis supra glabriusculis subtus argenteis, floralibus calyce subduplo longioribus, calycis argentei dentibus tubo dimidio brevioribus.

W. rosmariniformis. *Andr. Bot. Rep. t. 214.*

Cunila fruticosa. *Willd. Sp. 1. 122.*

Hab. in Nova Hollandia: frequens in collibus arenosis maritimis ad Portum Jackson, Botany Bay, et versus meridiem *A. Cunningham!* (*h. s. c. et v. s. sp. in herb. plur.*)

Frutex 1-2-pedalis et ultra, ramis divaricatis densis tetragonis, junioribus pilis adpressis argenteis. Folia fere pollicaria, sessilia, perennantia, rigida, patentia, acutiuscula, integerrima, basi parum angustata, juniora supra pilis adpressis cinerascentia, demum glabrata, nitida, subtus uti calyces pilis adpressis cinereo-argentea, nervo medio prominente, cæterum avenia. Flores in axillis solitarii, uti folia quaternatim verticillati, verticillis paucis ad apices ramorum approximatis. Bracteæ lineari-subulatæ, calyce breviores. Calyces sessiles, dentibus acutiusculis margine revolutis, maturatione subinflati. Corollæ extus adpresso-villosæ, intus pilis raris barbatae. Limbi labii superioris lobi latiusculi, truncati, inferioris angustiores subæquales. Stamina fertilia exserta, at laciniis corollinis breviora. Filamenta pilis paucis villosa.

2. *W. DAMPIERI* (Br.! Prod. 501), foliis quaternis linearibus margine revolutis supra glabriusculis subtus cinereis, floralibus calyce duplo longioribus, calycis argentei dentibus tubo dimidio brevioribus.

W. Dampieri. *Hook. ! Bot. Mag.* 61. t. 3308.

Hab. in Nova Hollandia ad Portum Jackson *R. Brown !* in collibus arenosis ad oras King George's Sound *A. Cunningham !* (v. s. sp. in herb. *De Candolle, Hooker, &c.*)

Vix a *W. rosmariniformi* distinguitur foliis crebrioribus parum angustioribus longioribusque, subtus minus argenteis. An ejus mera varietas ?

3. *W. BREVIFOLIA*, foliis quaternis elliptico-lanceolatis margine revolutis supra nitidis subtus argenteis, floralibus calyce subbrevioribus, calycis argentei dentibus tubo dimidio brevioribus.

Hab. in Terra Van Diemen *Gunn !* (h. s. sp. comm. a cl. *Lindley.*)

Affinis *W. rosmariniformi*, at diversa foliis multo minoribus, glabrioribus, et floribus minoribus.

4. *W. RIGIDA* (*Br. Prod.* 501), foliis ternis lineari-lanceolatis margine revolutis adultis supra glabris subtus calycibusque cinereis, dentibus tubo dimidio brevioribus.

Hab. in Novæ Hollandiæ ora meridionali *R. Brown*, frequens in rupibus aridis maritimis ins. Rottneſt ad ostium fluminis Swan oræ occidentalis *A. Cunningham !* (v. s. sp. in herb. *Hooker, Endlicher, et Cunningham.*)

W. Dampieri valde affinis, differt foliis ternis nec quaternis brevioribus, sæpius breviter mucronatis subpungentibus, et florum verticillis plerumque minus approximatis. Dentes calycini breves, subdivaricati. Folia floralia calycibus longiora. Folia in speciminibus suppetentibus interdum mutica.

5. *W. CINEREA* (*Br. Prod.* 501), foliis ternis lineari-lanceolatis divaricatis mucronatis pungentibus margine revolutis utrinque calycibusque cinereis, dentibus calycinis brevissimis.

W. cinerea. *Hook. ! Bot. Mag.* 61. t. 3307.

Hab. in Nova Hollandia ad oram meridionalem *R. Brown*, ad King George's Sound oræ austro-occidentalis, et in ins. Dick Hartog oræ occidentalis *A. Cunningham !* (v. s. c. in herb. *Hooker et Cunningham.*)

Fruticulus ramosissimus, humilis, divaricatus. Folia forma foliorum *W. Dampieri*, sed supra, præsertim juniora, tomento tenui cinerea, subtus candidiora tomentosa ; floralia conformia, calycibus subduplo longiora. Flores sessiles cum foliis ternatim verticillati, verticillis distantibus. Bractæ minutæ, adpressæ. Corollæ labium superius villosum pallide purpurascens, inferius albidum utroque purpureo-punctato.

6. *W. ANGUSTIFOLIA* (*Br. Prod.* 501).

Hab. in Terra Van Diemen *R. Brown.*

“ *W.* foliis ternis linearibus patentibus margine revolutis adultis supra scabriusculis subtus calycibusque cinereis, dentibus tubo dimidio brevioribus.”—*Br. l. c.*

7. *W. EREMICOLA* (*A. Cunningh. MSS.*), foliis ternis linearibus margine revolutis subtus cinereis, calycibus sericeo-pubescentibus, dentibus tubo sublongioribus.

W. longifolia. *Lindl. ! Bot. Reg.* 18. t. 1481. non *Br.*

Hab. in Nova Hollandia interiore : in desertis prope flumen Lachlan et in rupibus prope Bathurst *A. Cunningham !* ad flumen Macquarie

et in vallibus Lushington et Glen Finlass *Herb. Hooker!* (v. s. sp. in *herb. Hooker et Cunningham.*)

Rami divaricati foliosissimi. Folia angustiora quam in cæteris speciebus, vix semipollicaria, margine valde revoluta. Floralia calycibus longiora. Flores ad apices ramorum approximati. Dentes calycini lanceolato-subulati. Corollæ minores quam in *W. longifolia*. Laciniae labii superioris vix inferioribus latiores, labii inferioris lacinia media bifida.

8. *W. LONGIFOLIA* (Br. ! Prod. 501), foliis ternis linearibus margine recurvis utrinque calycibusque viridibus, dentibus calycinis longitudine tubi.

Prostanthera linearis. Sieb. ! *Pl. Nov. Holl. exs. non Br.*

Hab. in Nova Hollandia ad Portum Jackson *R. Brown ! Sieber ! &c.*, ibidem ad ripas rivulorum *A. Cunningham ! (h. s. sp.)*

Rami elongati hexagoni, ramosi, foliosi, angulis asperis. Folia internodiis longiora, plerumque pollicaria, breviter setaceo-acuminata, margine parum revoluta, supra scabriuscula, juniora subtus pilosula ; floralia conformia calyces longe superantia. Verticilli 2-3 in apicibus ramorum. Calyx breviter pedicellatus, dentibus lanceolatis acutissimis. Bracteæ pilosæ, calyce dimidio breviores.

9. *W. GLABRA* (Br. Prod. 501), foliis ternis lineari-lanceolatis planis utrinque calycibusque glabris.

Hab. in Nova Hollandia tropica *R. Brown, Caley ! (v. s. sp. in herb. Lambert.)*

Affinis *W. longifoliæ*, at foliis latioribus planis primo intuitu distincta. Folia fere pollicaria, apice rotundata, mucronata, basi in petiolum brevem angustata, utrinque uti tota planta glaberrima, uninervia ; floralia conformia. Verticilli florum pauci, distantes. Flores subsessiles folio multo breviores. Dentes calycini tubo parum breviores. Corollas non vidi.

10. *W. RUBIÆFOLIA* (Br. Prod. 501 ?), foliis quaternis ellipticis planiusculis glaberrimis nitidis, calycibus glabriusculis, dentibus tubo sublongioribus.

Hab. in Terra Van Diemen *R. Brown, Gunn ! &c. (h. s. sp.)*

A *W. rosmariniformi* differt glabritie, dentibus calycinis acutioribus, et foliis brevioribus latioribus margine vix revolutis. Rami juniores pilis adpressis pubescentes. Verticillastri 6-8-flori, secus ramos dispositi, axillis superioribus sterilibus. Ex cl. Brown folia elliptico-lanceolata, in speciminibus suppetentibus potius ovata quam lanceolata : an eadem species ?

LXV. MICROCORYS.

Microcorys. Br. Prod. 502.

Calyx campanulatus, sub 10-nervius, æqualis, 5-dentatus, fauce intus nuda. Corolla tubo calycem æquante, intus nuda, fauce ampliata, limbo subbilabiato, labio superiore subplano, emarginato-bifido, erecto-patente, inferiore patente, trifido. Stamina 4, erecta, distantia, tubo corollæ inclusa, superiora fertilia, antheris dimidiatis unilocularibus barbatis, inferiora sterilia, antheris bipartitis, lobis linearibus dependentibus, cassis. Stylus apice subæqualiter bifidus, lobis subulatis

apice stigmatiferis.—Frutices habitu *Westringiarum*, a quibus vix diversi. Folia ternatim verticillata. Flores parvi, albi vel purpurei, in axillis foliorum floralium caulinis conformium solitarii, et cum iis ternatim verticillati.

1. *M. VIRGATA* (Br. Prod. 502?), foliis oblongo-linearibus obtusis calycibusque glabris, bracteis caducis, corollis extus hirsutis.

Hab. in Novæ Hollandiæ ora meridionali *R. Brown*, in uliginosis ad King George's Sound *A. Cunningham!* (v. s. sp. in herb. *Cunningham et Hooker.*)

Caulis sec. *R. Brown* erectus, sed in speciminibus suppetentibus diffusus videtur. Rami elongati, virgati, parum ramosi, glabri, juniores triangulati, demum subteretes. Folia internodia subæquantia, circiter 3 lin. longa, sæpe ad unum latus falcata, integerrima, basi angustata, crassiuscula, avenia vel subtus uninervia, margine subrevoluta; floralia conformia, flores breviter superantia. Flores in axillis foliorum floralium solitarii et cum iis ternatim verticillati, secus ramos dispositi, foliis supremis sæpe sterilibus. Bracteæ minutæ, deciduæ. Pedicelli brevissimi. Calyces floriferi lineam, fructiferi sesquilineam longi, obscure 10-13-nervii, dentibus ovatis obtusiusculis, infimo parum longiore. Corollæ labium superius dentibus calycinis subbrevius, lobis brevissimis, latis, acutiusculis, extus hirsutis, inferioris lobi oblongi, obtusi, patentes, subæquales, labio superiore triplo longiores, fere glabri. Stamina subinclusa. Stylus staminibus brevior, glaber, lobis brevissimis. Achenia ovoidea, apice villosa.

2. *M. BARBATA* (Br. Prod. 502), foliis linearibus obtusis glabris, calycibus corollisque extus hirsutis, bracteis caducis.

Hab. in Nova Hollandia: ora meridionali *R. Brown*, ad King George's Sound *Herb. Hooker!* (h. s. sp. comm. a cl. *Hooker.*)

Habitus omnino *M. virgatæ*, a qua differt calycibus dense villosis. Rami glaberrimi. Folia etiam glaberrima, longiora quam in *M. virgata*, basi angustata.

3. *M. PURPUREA* (Br. Prod. 502).

Hab. in Novæ Hollandiæ ora meridionali *R. Brown.*

“*M. foliis ovali-oblongis margine recurvis utrinque pube rara brevissima conspersis subtus punctatis, ramulis sericeis, calycibus cinerascentibus, bracteis setaceis persistentibus.*”—*Br. l. c.*

TRIBUS VIII. NEPETEÆ.

CALYX æqualis vel obliquus subbilabiatusve, dentibus superioribus majoribus. Corolla inclusa vel exserta, fauce plerumque inflata, labio superiore subfornicato, inferiore patente. Stamina 4, didynama, superioribus longioribus! adscendentia vel divergentia.

The whole of this tribe might not inappropriately be considered as a single genus.

LXVI. LOPHANTHUS.

Lophanthus. Benth. in Bot. Reg. 15. ad calc. n. 1282.

Calyx tubulosus, 15-nervius, subincurvus, ore obliquo 5-dentato, dentibus superioribus sublongioribus. Corolla tubo calycem æquante, intus nudo, limbo bilabiato, labio superiore suberecto emarginato-bifido, inferiore subpatente trifido, lobo medio lato-crenato. Stamina 4, didynama, inferioribus brevioribus, distantia vel divaricata. Antheræ biloculares, loculis parallelis, vel demum subdivergentibus. Stylus apice breviter bifidus, lobis subæqualibus, subulatis, apice stigmatiferis. Achenia sicca, lævia, nuda.

The species of the first section are all North American, and form a very natural group, nearly allied to *Nepeta*, but strongly characterised by the unusual direction of the stamina, the upper ones declinate, the lower ones ascending. The *L. chinensis*, of which the name indicates the country, might perhaps be considered as a distinct genus intermediate between *Lophanthus* and *Nepeta*.

SECTIO I. CHIASTANDRA.

Verticillastri in spica terminali aggregati. Stamina superiora declinata, inferiora adscendentia. Folia integra.

1. *L. URTICIFOLIUS* (Benth. in Bot. Reg. 15. ad calc. n. 1282), glabra, foliis cordato-ovatis crenatis utrinque viridibus, spicis densis oblongis, laciniis calycinis lineari-subulatis, genitalibus longe exsertis.

Hab. in America boreali-occidentali ad flumen Lewis and Clark frequens *Douglas!* (v. s. sp. et h. s. c. e Hort. Soc. Hort. Lond.)

Caulis elatus sæpe 3-4-pedalis, crassus, ramosus, tetragonus. Folia petiolata, basi lata, apice obtusa vel superiora acutiuscula, floralia sessilia, ovata, acuta, sub

spica caulinis subconformia, in spica flores æquantia, integerrima, at omnia viridia vel vix membranaceo-colorata. Bracteæ paucæ, lanceolato-lineares, calyce subbreviores, membranaceæ, coloratæ. Verticillastri multiflori, densi, in spica crassa 2-4-pollicari imbricati. Calyces semipollicares, incurvi, glabri, membranacei, apice colorati, ore obliquo, dentibus superioribus longioribus. Corolla purpurascens, breviter exserta, fauce parum inflata, limbo brevi; labium superius profunde emarginato-bifidum, laciniis subpatentibus; laciniæ laterales integerrimæ, patentes, infimæ majores, rotundatæ, crenatæ, concavæ. Stamina longe exserta, inferiora adscendentia, superiora longiora declinata.

2. *L. ANISATUS* (Benth. in Bot. Reg. 15. t. 1282), glaber, foliis ovatis vel ovato-lanceolatis acutis crenatis supra viridibus subtus albis, spicis cylindricis basi interruptis, laciniis calycinis lanceolatis acutis, genitalibus exsertis.

Hyssopus anisatus. Nutt. Gen. N. Amer. 2. 27.

Hyssopus discolor. Desf. Cat. Hort. Par. ed. 3. 97.

Stachys fœniculum. Pursh. ! Fl. Amer. Sept. 2. 407.

Hyssopus fœniculum. Spreng. Cent. Pl. Min. Cogn. 24.

Hab. in America boreali: in dumetis ad flumina Missouri Nuttall, Saskatchewan, Columbia, et Red River Douglas! (h. s. sp., et h. s. c.)

Caulis bi- tripedalis, tetragonus, ramosus, erectus, glaber. Folia 1½-2-pollicaria, supra glabra, subtus tomento oculo nudo inconspicuo alba; floralia minora, inferiora conformia, superiora calyces breviora, subintegerrima. Spica plerumque 3-pollicaris, interdum semipedalis, densa, verticillastri paucis, densissimis, subdistinctis. Bracteæ paucæ, parvæ, lineari-lanceolatæ. Flores dimidio minores quam in *L. urticifolio*. Calyx vix 3-linearis, apice coloratus, ore vix obliquo. Corolla incurva. Stamina *L. urticifolii*.

3. *L. SCROPHULARIÆFOLIUS* (Benth. in Bot. Reg. 15. ad calc. n. 1282), caule pubescente, foliis ovatis acutis serrato-crenatis utrinque viridibus supra glabris subtus pubescentibus, spicis cylindricis basi interruptis, dentibus calycinis lanceolatis acutis.

Hyssopus scrophulariæfolius. Willd. Spec. 3. 48.

Hyssopus catariæfolius. Hort. Par.

Hab. in America septentrionali: in umbrosis humidis a Pennsylvania ad Virginiam rarius Pursh, ad West Chester Drummond! (h. s. sp.)

Habitus *L. anisati*, a quo differt foliis latioribus subtus pubescentibus nec albis; floribus parum majoribus. A *L. nepetoide* differt foliis subtus pubescentibus, floribus majoribus, et præsertim calycibus apice coloratis acute dentatis.

4. *L. NEPETOIDES* (Benth. in Bot. Reg. 15. ad calc. n. 1282), glaber, foliis ovatis acutiusculis serrato-crenatis utrinque viridibus glabris vel subtus vix pubescentibus, spicis cylindricis basi interruptis, dentibus calycinis ovatis obtusiusculis.

Hyssopus nepetoides. Linn. Spec. 796. Jacq. Hort. Vind. 1. 28. t. 69.

Hab. in America boreali: in umbrosis a Pennsylvania ad Virginiam Pursh, ad Mississippi prope Saint Louis Beck, Drummond! prope West Chester Drummond! (h. s. sp.)

Caulis 2-3-pedalis, erectus, ramosus, glaber, tetragonus. Folia 1½-2-pollicaria, basi rotundata vel subcordata, subtus oculo nudo glabra, sub lente pubescentia. Racemus 3-6-pollicaris, densus, viridis, verticillastri multifloris, inferioribus dis-

tinctis, superioribus subconfluentibus. Bracteæ paucae, ovatae, virides. Calyces tubuloso-campanulati, virides, extus intusque glabri, dentibus brevibus obtusis vel vix acutis, superioribus parum majoribus. Corolla vix dentes calycinis excedens, staminibus breviter exsertis. Stylus sæpius corolla brevior, interdum vero exsertus. Achenia apice villosa.

SECTIO II. RESUPINARIA.

Cymæ axillares, pedunculatae, laxae, pauciflorae. Flores subresupinati. Stamina inferiora subrecta, superiora adscendentia.

5. *L. CHINENSIS* (Benth. in Bot. Reg. 15. ad calc. n. 1282), foliis ovatis oblongisve crenatis, floralibus subconformibus, cymis axillaribus pedunculatis laxis paucifloris, floribus subresupinatis.

Hyssopus lophanthus. Linn. Spec. 796. Jacq. Hort. Vind. 2. 85. t. 182.

Hyssopus resupinatus. Mœnch.

Nepeta lophantha. Fisch.

Hab. in Sibiria circa Peshkova prope Nertscha *Patrin!* in deserto Kirghisorum *Bunge!* in China septentrionali *Linnaeus. (h. s. sp. comm. a cl. Bunge.)*

Planta subviscosa. Caules 1-1½-pedales, erecti, ramosi, ramis tetragonis, glabris vel tenuiter pubescentibus. Folia breviter petiolata, pollicaria, obtusa, basi rotundata truncata vel vix cordata, utrinque viridia, glabra vel vix pubescentia; floralia plerumque cymas æquantia vel suprema minora. Pedunculi subsecundi, apice cymam unilateralem 3-5-floram ferentes. Bracteæ breves, subulatae. Flores torsione pedicelli et calycis partis inferioris plerumque resupinati. Calyx 4-5 lin. longus, tubuloso-subcampanulatus, viridis, striatus, pubescens, subrectus vel ore parum obliquo, dentibus latis obtusiusculis vix inæqualibus, intus supra achenia villosus. Corolla cœrulea, tubo breviter exserto, fauce limboque amplis, labio superiore profunde emarginato, laciniis planis erectis, labio inferiore trifido, lobis lateralibus patentibus integerrimis, medio maximo crenulato. Stamina superiora exserta, inferiora vix faucem corollæ æquantia. Antherarum loculi paralleli vel vix demum divergentes. Achenia oblonga, læviuscula.

LXVII. NEPETA.

Nepeta et Glechoma. Linn. et Auct.

Cataria. Mœnch.

Calyx tubulosus, 13-15-nervius, plerumque incurvus, ore oblique 5-dentato, rarius ovatus, rectus, ore dentibusque æqualibus. Corolla tubo basi tenui incluso vel exserto, intus nudo, fauce ampliata, limbo bilabiato, labio superiore recto subconcavo, emarginato vel bifido, inferiore patente trifido, lobo medio maximo, nunc subbifido lobis reflexo-patentibus, nunc integro, concavo, crenulato. Stamina 4, didynama, inferioribus brevioribus, adscendentia. Antheræ per paria sæpius approximatae, biloculares, loculis divergentibus demum divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, lævia, nuda.

Spread over the whole of Europe, and the temperate parts of Asia,

this genus is most numerous in species in the east Mediterranean region, and in the Caucaso-Caspian, Persian, and Himalayan mountains.

The appearance of the *Nepetæ* alters very much according to their age and station; I have, therefore, had great difficulty in drawing up the following analysis, upon which I fear less reliance must be placed than on that of many other genera.

CONSPECTUS SPECIERUM.

SECT. I. SCHIZONEPETA. *Verticillastri conferti, supremi in spica subinterrupta approximati. Folia dissecta vel lobata.*

Folia subbipinnatifida, segmentis oblongo-linearibus.

Caules suberecti, semipedales

1. N. BOTRYOIDES.

Caules elongati, procumbentes

2. N. TENUIFOLIA.

Folia subpinnatifida, segmentis ovatis oblongisve

3. N. LAVANDULACEA.

SECT. II. PYCNONEPETA. *Verticillastri conferti, supremi vel omnes in spica terminali aggregati, cymis omnibus sessilibus. Bracteæ, saltem exteriores, imbricatæ, calycem æquantes.*

Folia lanceolata vel linearia, integerrima vel serrata.

Folia integerrima.

Folia linearia, basi angustata

4. N. LINEARIS.

Folia lanceolata, basi cordato-amplexicaulia

5. N. CONNATA.

Folia serrata

6. N. NERVOSA.

Folia ovata, oblonga, vel ovato-lanceolata, crenata.

Folia omnia sessilia.

Spica brevis, densa

10. N. ELLIPTICA.

Spica elongata, interrupta.

Corollæ tubus inclusus

15. N. TUBEROSA.

Corollæ tubus longe exsertus

14. N. ROSEA.

Folia inferiora petiolata.

Bracteæ lato-ovatæ.

Caules erecti.

Caules apice hirsuto-lanati. Spica
basi interrupta.

Corollæ tubus inclusus

15. N. TUBEROSA.

Corollæ tubus longe exsertus

14. N. ROSEA.

Caules apice pubescentes. Spica

brevis, densa

6. N. NERVOSA.

Caules basi procumbentes

17. N. SCORDOTIS.

Bracteæ oblongæ, lanceolatæ vel lineares.

Spica brevis, ovata, secunda

11. N. FISSA.

Spica oblonga vel cylindrica, subæqualis.

Folia subtus albida

9. N. DISCOLOR.

Folia concoloria.

Folia glaberrima, 2-3-pollicaria.

Spicæ tenues vix interruptæ

7. N. ELATA.

Folia subtus pubescentia, 1-1½-

pollicaria. Spicæ breves densæ

8. N. SPICATA.

Folia adpresse villosa. Spicæ basi

subinterruptæ, verticillastris

densis multifloris

12. N. MULTIBRACTEATA.

Folia glabriuscula, lato-ovata.

Spicæ tenues, interruptæ

13. N. VAILLANTII.

Folia glabra vel sublanata, ovato-

oblonga. Spicæ tenues, in-

terruptæ

14. N. ROSEA.

Folia rugosissima, albo-lanata

20. N. SIBTHORPII.

Species non satis notæ : 16. N. APULEI ; 18. N. CIRCINNATA ; 19. N. SUPINA.

SECT. III. STEGIONEPETA. *Verticillastri superiores conferti approximati, inferiorum cymæ pedunculatæ. Racemi simplices vel rarius ramosi. Bracteæ calycem subæquantes vel superantes.*

- Bracteæ lato-ovatæ, molliter villosæ . . . 23. N. CILIARIS.
 Bracteæ subulatæ, lanceolatæ vel glabræ.
 Calyces ovato-tubulosi, membranacei, uti bracteæ molliter villosi.
 Folia utrinque subviridia.
 Corolla calyce dimidio longior . . . 24. N. RUDERALIS.
 Corolla vix calycem superans . . . 25. N. CLINOPODIODES.
 Folia subtus albo-tomentosa . . . 26. N. LEUCOPHYLLA.
 Calyces elongati, striati. Bracteæ glabriusculæ.
 Folia rugosa, utrinque albo-lanata . . . 20. N. SIBTHORPII.
 Folia rugosa, supra viridia, subtus lanata . . . 22. N. DISTANS.
 Folia cano-tomentosa . . . 21. N. ITALICA.

SECT. IV. CATARIA. *Racemi simplices vel paniculati. Cymæ inferiores pedunculatæ, superiores in verticillastris multifloris condensatæ. Bracteæ calyce multo breviores. Calyx incurvus, ore obliquo.*

- Pedunculi elongati, tenues, setaceo-dichotomi vel pauciflori.
 Rami elongati. Panicula ultrapedalis . . . 27. N. GRACILIFLORA.
 Planta humilis. Panicula pauciflora . . . 28. N. MICRANTHA.
 Pedunculi breves, rigidi vel multiflori.
 Calyx lana alba vel cœrulescente, præsertim basi, vestitus.
 Caulis procumbens . . . 37. N. MUSSINI.
 Caulis divaricato-ramosissimus . . . 31. N. CYANEA.
 Caulis erectus, basi ramosus.
 Folia ovata . . . 36. N. RACEMOSA.
 Folia lanceolata . . . 30. N. NEPETELLA.
 Calyx glaber vel pubescens.
 Corolla calyce plus duplo longior, tubo subexserto.
 Folia inciso-dentata, margine undulato-crispa.
 Folia ovata utrinque subcano-pubescentia . . . 33. N. CRISPA.
 Folia ovato-lanceolata, utrinque viridia, subviscosa . . . 34. N. AGRESTIS.
 Folia crenata, margine subplana.
 Folia rugosa, subtus albo-tomentosa.
 Racemus brevis. Verticillastri supremi subspicati . . . 35. N. AZUREA.
 Racemus laxis, elongatus. Verticillastri remoti . . . 40. N. SALVIÆFOLIA.
 Folia utrinque viridia vel subtus pallida, glabra, pubescentia, vel molliter villosa.
 Folia, caulis, et calyces molliter villosi . . . 39. N. BETONICÆFOLIA.
 Caules glabriusculi. Folia fere glabra, subtus pallida . . . 38. N. GRANDIFLORA.
 Caules et folia (concoloria) subviscoso-pubescentia . . . 41. N. MELISSÆFOLIA.

Corolla calyce vix duplo longior, tubo sub-
incluso, fauce tantum exserta.

Folia ovata.

Caulis elatus. Corolla calyce sub-
duplo longior 29. N. CATARIA.

Caulis humilis. Corolla calycem vix
excedens 32. N. MEYERI.

Folia lanceolata 30. N. NEPETELLA.

SECT. V. MACRONEPETA. *Cymæ pedunculatæ, paucifloræ. Ra-
cemi laxissimi, subramosi. Calyx elongatus, ore obliquo. Corollæ
tubus tenuis, sub fauce inflata, longe exsertus.*

Folia ampla, ovato- vel oblongo-lanceolata.

Folia utrinque viridia. Corolla calyce plus
triplo longior (*Sibirica*) 42. N. MACRANTHA.

Folia subtus canescentia. Corolla calyce vix
triplo longior (*Himalayana*) 44. N. ERECTA.

Folia utrinque subviridia. Corolla calyce qua-
druplo longior (*Himalayana*) 43. N. GOVANIANA.

Folia vix 1-1½-pollicaria vel minora, ovata vel
rotundata.

Folia ovata vel oblonga.

Folia rugosa, sæpe tomentosa.

Cymæ densiusculæ, plurifloræ 40. N. SALVIÆFOLIA.

Cymæ laxæ, paucifloræ 47. N. LONGIFLORA.

Folia glaberrima, lævia 45. N. GLABRA.

Folia subrotunda.

Folia subsessilia. Planta glutinosa 49. N. SEPTEMCRENATA.

Folia inferiora longe petiolata.

Planta subglutinosa 41. N. MELISSÆFOLIA.

Planta non glutinosa.

Folia pubescentia 48. N. BREVIFOLIA.

Folia glaberrima 46. N. LAXA.

Species non satis notæ, 50 N. TENUIFOLIA, 51 N. LAMIIFOLIA.

SECT. VI. GLECHOMA. *Verticillastri axillares pauciflori, foliis
floralibus caulinis conformibus.*

Species unica 52. N. GLECHOMA.

SECT. VII. ORTHONEPETA. *Cymæ densæ breviter pedunculatæ.
Verticillastri racemosi. Bracteæ calyce breviores. Calyces ovato-
tubulosi, subrecti, ore truncato, dentibus æqualibus, subulatis, rigidis.*

Folia 1½-2-pollicaria. Calyces fructiferi vix 2 lin.

longi 54. N. NUDA.

Folia 2-3-pollicaria et longiora. Calyces fructi-

feri 3 lin. longi. 53. N. LATIFOLIA.

SECT. VIII. OXYNEPETA. *Flores distantes vel ad apices ramorum
glomerati, corymboso-paniculati. Calyces tubulosi, subrecti, dentibus
subulatis, pungentibus. Corolla dentibus calycinis subbrevior.*

Caules uti cymæ laxè trichotomo-paniculatæ.

Villosa. Calyx ovato-tubulosus, pubescens 55. N. PARVIFLORA.

Glabriuscula. Calyx elongato-tubulosus, his-
pidus 56. N. UKRANICA.

Canescens. Calyx elongato-tubulosus, hispidus 57. N. HELIOTROPIFOLIA.

Caules divaricato-ramosi. Cymæ dense corymbosæ.

Cymæ terminales paucifloræ 59. N. PUSILLA.

Cymæ subracemosæ, 30-40-floræ 58. N. PUNGENS.

SECTIO I. SCHIZONEPETA.

Verticillastri conferti, supremi in spica terminali subinterrupta approximati, cymis omnibus sessilibus. Bracteæ variæ. Calyx tubulosus, rectus vel sæpius incurvus, ore æquali vel obliquo. Stamina subexserta, laxè adscendentia. Folia dissecta vel lobata.

The plants of this section are intermediate between *Lophanthus* and *Nepeta*. The lobes of the anthers are linear, as in most *Nepetæ*, and, when old, nearly divaricate; but the stamina are scarcely approximated in pairs.

1. *N. BOTRYOIDES* (Ait. Hort. Kew. 2. 287), adscendens humilis ramosissima pubescens, foliis petiolatis profunde subbipinnatifidis, segmentis oblongo-lanceolatis linearibusve obtusis integerrimis vel subpinnatifidis, floralibus lineari-subulatis, spicis cylindricis basi vix interruptis, racemis simplicibus spiciformibus, bracteis dentibusque calycinis acutis.

N. multifida. Linn. Suppl. 273.

N. annua. Pall. in Act. Petrop. 1779. 2. 263. t. 12.

N. bipinnata. Cav. Ic. Rar. 1. 36. t. 49.

Hab. in Sibiria orientali in regione Altaico ad fluv. Katunja et Tschuja *Bunge!* in deserto Soongoro-Kirghisico *Meyer.* (*h. s. sp.*)

Herba annua, vix semipedalis. Folia sæpius bipinnatifida, superiora simpliciter pinnatifida, floralia minuta. Spica densa, 2-3-pollicaris. Bracteæ minutæ. Calyx membranaceus, pubescens, ore obliquo. Corolla flavescent, villosa. Stamina corolla subbrevia.

2. *N. TENUIFOLIA*, caule procumbente glabro vel tenuissime pubescente, foliis petiolatis pinnatisectis, segmentis oblongo-linearibus acutis subserratis basi angustatis utrinque glabriusculis, superioribus floralibusque integris, spica gracili basi subinterrupta, corollis minutis calyces breviter superantibus.

Hab. in China inter Pekin et Jehol *Sir G. Staunton!* (*v. s. sp. in herb. Banks.*)

A *N. lavandulacea* differt foliis spicisque gracilibus, floribus minutis; a *N. botryoidi* caulibus elongatis procumbentibus, &c.

3. *N. LAVANDULACEA* (Linn. f. Suppl. 272), adscendens pubescens, foliis petiolatis basi profunde pinnatifidis, segmentis oblongis ovatisve obtusis, floralibus ovatis acuminatis, spicis cylindricis basi interruptis, dentibus calycinis brevissimis ovatis, corollis calyce subduplo longioribus.

N. multifida. Linn. Spec. 799. Reichb. Icon. Bot. Eur. 6. 22. t. 530.

Lophanthus multifidus. Benth. in Bot. Reg. 15. ad calc. n. 1282.

N. lobata. Rudolph. ex Steud. Nom. Bot. 552.

Saussurea pinnatifida. Mæench. Meth. 388.

Lavandula foliis ovatis, &c. Gmel. Fl. Sib. 3. 242. t. 55.

Hab. in Sibiria orientali: in regionis Altaicæ occidentalioris locis montosis apricis frequens *Ledebour!* in Dahuria *Bunge!* (*h. s. sp.*)

Caules e basi perenni plures, subsimplices, 1-1½-pedales, pilis paucis longiusculis, præsertim basi, pubescentes. Folia nunc omnia in segmentis 5-7 dissecta, nunc inciso-pinnatifida vel subintegra. Segmenta forma variabilia, terminali majore

inciso, cæterum integerrima, utrinque viridia, glabra vel ad venas subtus pilosa. Folia floralia sessilia, latissime ovata, integerrima, calyces subæquantia. Calyx subcampanulatus, $1\frac{1}{2}$ -2 lin. longus, apice villosus, cœrulescens, ore vix obliquo, dentibus subæqualibus. Corolla cœrulea, incurva, limbi laciniis 4 superioribus subæqualibus, infimo duplo majore integerrimo, vel vix emarginato. Stamina omnia basi adscendentia, antheris exsertis distantibus, loculis divergentibus.

SECTIO II. PYCNONEPETA.

Verticillastri conferti, supremi vel omnes in spica terminali aggregati, cymis omnibus sessilibus. Bracteæ, saltem exteriores, imbricatæ, calyces æquantes. Calyx tubulosus, rectus vel incurvus, ore æquali vel obliquo.

4. *N. LINEARIS* (Royle! Benth. in Hook. Bot. Misc. 3. 377), caulibus adscendentibus glabriusculis, foliis sessilibus linearibus acutiusculis integerrimis basi angustatis utrinque viridibus glabris, spica ovata pauciflora, bracteis lanceolato-subulatis, calycis elongati dentibus lanceolatis tubo brevioribus.

Hab. in Indiæ orientalis montibus Himalayensibus: ad Sabathos et versus vallem Cashmerianum *Royle!* (*h. s. sp. comm. a cl. Royle.*)

Caules humiles basi procumbentes, plerumque glabri. Folia 1-2-pollicaria, floralia sæpe subconformia at multo breviora. Spicæ breves subinterruptæ. Calyces basi glabriusculi, dentibus villosis. Corollæ tubus tenuis exsertus.

5. *N. CONNATA* (Royle! Benth. in Hook. Bot. Misc. 3. 378), caule erecto villosa, foliis sessilibus lanceolatis acutis integerrimis basi cordato-amplexicaulibus subconnatis utrinque viridibus glabris, spica oblonga densa vel basi subinterrupta, bracteis lanceolato-subulatis ciliatis calycem æquantibus, dentibus calycinis subulatis tubo longioribus.

Hab. in valle Cashmeriano *Royle!* (*h. s. sp. comm. a cl. Royle.*)

Species pulcherrima. Caules subsimplices, pilis mollibus albis villosi, folia 2-3-pollicaria, subtus venosa, basi dilatata, et sæpius plus minusve connata. Spica 2-3-pollicaris, crassa, pubescens. Folia floralia ovato-lanceolata, longe subulato-acuminata. Bracteæ plerumque subulatæ, 7-8 lin. longæ. Corollæ incurvæ, dentes calycinis breviter excedentes.

6. *N. NERVOSA* (Royle! Benth. in Hook. Bot. Misc. 3. 378), glabra caule humili erecto ramoso, foliis brevissime petiolatis lanceolatis acutis serratis basi rotundatis utrinque viridibus, spica oblonga densa, bracteis exterioribus ovatis acutissimis ciliatis calyce longioribus, dentibus calycinis longe subulatis tubo subæqualibus.

Hab. in valle Cashmeriano *Royle!* (*h. s. sp. comm. a cl. Royle.*)

Herba videtur semipedalis vel vix pedalis, basi ramosus, foliosus, ramis erectis uti folia glabris. Folia 1-2-pollicaria, subtus venis prominentibus. Spica *N. spicata* sed bracteæ multo latiores, membranaceæ, venosæ, longe ciliatæ. Calyces parvi, ore subæquali. Corolla incurva, calyce duplo longior.

7. *N. ELATA* (Royle! Benth. in Hook. Bot. Misc. 3. 378), caule erecto glabro, foliis petiolatis oblongo-ovatis vel ovato-lanceolatis crenatis basi late cordatis utrinque viridibus glabris, spicis oblongo-cylin-

dricis subinterruptis, bracteis lanceolato-subulatis calyce subbrevioribus, calycis glabriusculi dentibus subulatis tubum æquantibus.

Hab. in Indiæ orientalis montibus Himalayensibus ad Simlah *Lady Dalhousie* ! et in valle Cashmeriano *Royle* ! (v. s. sp. in herb. *Royle et Hooker.*)

Herba 2-3-pedalis, ex omni parte glaberrima vel rarius dentibus calycinis breviter pubescentibus, petiolis foliisque floralibus subciliatis. Caulis acute tetragonus, parum ramosus. Folia 2-3-pollicaria, forma fere *N. macranthæ*, inferiora obtusa, superiora acutiuscula. Spicæ ad apices ramorum 1-1½-pollicares, tenues. Verticillastri pauciflori subdistincti. Folia floralia ovato-lanceolata, bractæformia, uti bractæ acutissima venosa. Corollæ incurvæ, calyce duplo longiores, tubo exserto.

8. *N. SPICATA* (Benth. in Wall. Pl. As. Rar. 1. 64), erecta glabriuscula, foliis petiolatis ovatis obtusis crenatis basi cordatis utrinque viridibus, racemo spiciformi abbreviato denso, bracteis oblongo-vel lanceolato-linearibus subulato-acuminatis calycem æquantibus, dentibus calycinis longe subulatis tubo subæqualibus.

Betonica lævigata. Don. Prod. Fl. Nep. 110.

Hab. in India orientali: in montibus Himalayanis provinciæ Kamaon et Bhuddrinath *Wallich* ! in valle Cashmeriano *Royle* ! ad Simlah *Lady Dalhousie* ! (h. s. sp. e Mus. Angl. Ind. et comm. a cl. *Royle.*)

Herba elata, parum ramosa. Caulis acute tetragonus angulis pubescentibus, cæterum glaber. Folia 1-1½-pollicaria, inferiora longiuscule, superiora breviter petiolata, remota, floralia lato-ovata, sessilia, bractæformia, acutissima, serrulata. Spica sesquipollicaris, densa. Calyces sessiles, incurvi, ore subæquali. Corolla incurva, calyce duplo longior. Achenia lævissima.

Specimina Cashmeriana ramosiora sunt, et spica longior, tenuior, et laxior videtur; sed non meo sensu ab Himalayanis distinguenda.

9. *N. DISCOLOR* (*Royle* ! Benth. in Hook. Bot. Misc. 3. 378), caule adscendente, basi villosa, foliis petiolatis ovatis obtusis crenatis basi subcordatis supra viridibus subtus incanis, spica oblonga densa vel basi subinterrupta, bracteis oblongo-linearibus acutissimis calycem æquantibus, calycis glabriusculi dentibus subulatis tubum æquantibus.

Hab. in Indiæ Orientalis montibus Himalayanis ad Syen et Mussooree *Royle* ! (h. s. sp. comm. a cl. *Royle.*)

Caulis basi procumbens, pilis brevibus patentibus villosus, superne adscendens, subnudus, et fere glaber. Folia fere *N. Mussini* sed minora. Spica sesquipollicaris. Bractæ et dentes calycini breviter ciliata.

10. *N. ELLIPTICA* (*Royle* ! Benth. in Hook. Bot. Misc. 3. 378), caule erecto subvillosa, foliis sessilibus ovato-ellipticis obtusis anguste dentatis basi cordatis utrinque viridibus glabris, spica basi interrupta, foliis floralibus bracteisque ovato-lanceolatis acutissimis ciliatis calyce sublongioribus, dentibus calycinis subulatis tubo subæqualibus.

N. polystachya. Benth. in Hook. Bot. Misc. 3. 378.

β *parviflora.*

Hab. in Indiæ Orientalis montibus Himalayensibus a Cashmeria ad montes Syen *Royle* ! β ad Simlah *Lady Dalhousie* ! (h. s. sp. comm. a cl. *Royle.*)

Species foliis eleganter et regulariter dentatis, primo intuitu distinctissima. Caulis 1-2-pedalis, parum ramosus, pilis mollibus albis villosus, vel demum glabratus. Folia circiter pollicaria, apice late rotundata, superiora minora acute acuminata, floralia infima subconformia, superiora bracteæformia. Spica tenuis, 1½-2-pollicaris. Calyx et corolla *N. spicata*. Var. β non nisi corollis minoribus differt.

11. *N. FISSA* (Meyer! Enum. Pl. Cauc.-Casp. 93), humilis, adscendens, pubescens, foliis subsessilibus ovatis crenatis basi rotundatis rugosis utrinque viridibus villosis, spica ovata secunda, bracteis oblongo-lanceolatis calyces subæquantibus, calycis ore valde obliquo subbilabiato, corollis calyce plus duplo longioribus.

Hab. in regione Caucasico-Caspico: in locis lapidosis aridis montium Talüsch prope pagos Siwirs et Swant *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

Caulis basi ramosus, foliosus, ramis semipedalibus, superne subnudis. Folia ¼-1-pollicaria, superiora parva, remota, floralia infima subconformia, suprema bracteæformia. Verticillastri pauci, omnes in spica vix pollicari approximati vel uno distante. Calyx magnus, viridis, membranaceus, striatus, pubescens, dentibus superioribus multo majoribus in labio superiore basi subconnatis. Corolla cærulea, fere pollicaris, subglabra, fauce valde ampliata. Species inter *Nepetam* et *Dracocephalum* media.

12. *N. MULTIBRACTEATA* (Desf. Fl. Atl. 2. 11. t. 123), erecta, pubescens, foliis breviter petiolatis ovato-oblongis crenatis basi cordatis utrinque viridibus, racemo spiciformi denso simplici basi subinterrupto, bracteis lineari-subulatis coloratis calycem æquantibus, corollæ tubo dentes calycinis æquante.

Hab. in Atlante prope Tlemsen *Desfontaines!* (*h. s. sp. in herb. Vahl.*)

Caules elati, subsimplices, obtuse tetragoni, tenuiter pubescentes. Folia inferiora 1-2-pollicaria, obtusa, basi profunde cordata, utrinque adpresse villosa, superiora longe remota, minora, sessilia, acuta, floralia integerrima, suprema bracteæformia. Spica oblonga, basi plus pollice diametro, purpurascens, verticillastris dense multifloris, infimo distante. Bracteæ numerosæ, acutissimæ, pubescentes. Calyx villosus, elongatus, dentibus lanceolato-subulatis. Corolla *N. reticulata*.

13. *N. VAILLANTII*, erecta, glabriuscula, foliis petiolatis lato-ovatis obtusis basi cordatis superioribus subsessilibus utrinque viridibus, racemo simplici interrupte spiciformi, verticillastris paucifloris, bracteis exterioribus oblongis obtusiusculis adpressis striatis subcoloratis calycibusque pubescentibus, corollæ tubo breviter exserto.

Hab. in Oriente? *Le Vaillant!* (*v. s. sp. in herb. Vahl ex herb. Jussieu.*)

Caules e radice perenni pedales, acute tetragoni, ad angulos tenuiter pubescentes. Folia pollicaria, late nec profunde crenata, subtus ad venas primarias subpubescentia, cæterum uti pagina superior glabra, superiora sessilia, floralia lato-ovata, integerrima, vix calyce longiora. Spica elongata, vix semipollicem diametro. Bracteæ interiores lanceolatae. Dentes calycini lanceolato-lineares, superiores angustiores. Corolla glabra incurva, calyce subduplo longior.

14. *N. ROSEA* (Salzm.! Pl. Tang. Exs.), erecta, subglabra, foliis sessilibus ovato-lanceolatis crenatis basi cordatis utrinque viridibus, racemo spiciformi denso simplici, bracteis oblongo-lanceolatis subcoloratis calycem subæquantibus, dentibus calycinis lanceolatis tubo longioribus, corollæ tubo longe exserto.

N. tuberosa. Desf. Fl. Atl. 2. 10. non Linn.

June 1834.

3 Q

Hab. in Africa boreali ad Tanger *Salzmann, Broussonet* † (*h. s. sp. comm. a cl. Requier et Salzmann.*)

Caulis durus, simplex vel rarius subramosus, pedalis, glaber vel tenuissime pubescens. Folia minora et breviora quam in *N. tuberosa*, minus rugosa et glabra, vel lana paucissima in parte superiore caulis induta. Spica tenuis, 2-3-pollicaris, rarius elongata. Verticillastri inferiores distincti, superiores subimbricati. Folia floralia ovata, basi rotundata, cæterum bracteis conformia. Bracteæ imbricatæ, calyces floriferos obtegentes, fructiferis breviores, acutissimæ, coloratæ, striatæ, pubescentes. Calyx subæqualis, profunde quinquedentatus. Corolla pubescens, tubo elongato incurvo tenui, fauce dilatata; labii inferioris lobus medius latissimus crenulatus.

15. *N. TUBEROSA* (Linn.! Spec. 798), caule erecto simplici sublanato, foliis infimis petiolatis superioribus sessilibus ovato-lanceolatis crenatis basi dilatatis cordatis utrinque viridibus vel subtus sublanatis rugosis, racemo spiciformi denso simplici elongato, bracteis lato-ovatis reticulatis coloratis calyces æquantibus, corollæ tubo dentes calycinos æquante.

N. tuberosa. *Reichb. Icon. Bot. Eur.* 5. 23. t. 439.

N. lanata. *Jacq.! Obs. Bot.* 3. 21. t. 75.

N. reticulata. *Desf. Fl. Atl.* 2. 11. t. 124. *Reichb. Icon. Bot. Eur.* 5. 23. t. 440.

N. violacea. *Brot.*

N. scabra. *Tausch. in Bot. Zeit.* 1831. 1. 218. ?*

Hab. in Hispania australi! Lusitania! in Atlante prope Tlemsen *Desfontaines*, in Sicilia *Gussone*. (*h. s. sp. comm. a cl. Lambert et Salzmann.*)

Radix fasciculato-tuberosa. Caulis crassus, 1-2-pedalis, lana laxa subviscosa plus minusve hirsutus. Folia crebra suberecta, inferiora pauca petiolata, cætera sessilia 2-3-pollicaria, superiora breviora et latiora, suprema subcolorata et gradatim in floralibus bracteæformibus abeuntia, caulina omnia rugosa, pubescentia, subtus sæpe lana laxa canescentia. Spica nunc vix bipollicaris, sæpe fere pedalis. Verticillastri sæpius omnes distincti at valde approximati, dense multiflori, 3-4 pollices diametro. Bracteæ numerosæ, lato-ovatae, acutæ, integerrimæ, basi cordatæ, membranaceæ, reticulato-venosæ, pubescentes, plerumque coloratæ et calyces excedentes, interdum viridiusculæ calyce subbreviores. Calyx sessilis, tubulosus, parum incurvus, dentibus anguste lanceolatis. Corollæ cœruleæ, labii inferioris lobo medio crenulato, supra ad basin piloso.

It appears to me that Desfontaines has mistaken Linnæus's *N. tuberosa*, and described it as a new species; whilst his description of *N. tuberosa* answers exactly to the *N. rosea* which I have from Broussonet's herbarium under the former name, but is certainly neither Linnæus's plant, nor yet Jacquin's *N. lanata*.

16. *N. APULEI* (Ucria ex Guss. Prod. Fl. Sicul. 2. 80).

Hab. in Siciliæ apricis et collibus argilloso-calcareis *Gussone*.

"*N. spicis terminalibus verticillatis, verticillis superne approximatis, bracteis numerosis oblongo-lanceolatis apice coloratis nervosis calycibusque villosis hirsutis subæqualibus, foliis cordatis ovato-oblongis grosse dentato-crenatis ciliatis, superioribus sessilibus.*

"Caulis tetragonus, simplex vel apice ramosus, villosus ad angulos. Folia pallide virentia, aliquando glabriuscula. Corollæ pubescentes, lobi laterales patentes non reflexi. Bracteæ in verticillis infimis aliquando latæ, cordatæ, foliis conformes, reliquæ vero exquisite nervosæ, aliquando utrinque unidentatæ, margine apicem versus præsertim villosa-ciliatæ et uti dentes calycini lanceolati acuminatæ, calycibus æquales vel breviores; hæ vero et illi nunquam tomento obvoluti."—*Guss. l. c.*

* Tausch's garden *Nepetæ* are very doubtful, and perhaps not all belonging to the genus. Not considering it worth devoting much time to investigate them, I have referred them to those species to which his descriptions approach the nearest.

17. *N. SCORDOTIS* (Linn. Spec. 798), adscendens, tomentoso-lanata, foliis petiolatis ovato-rotundatis obtusis basi cordatis utrinque villosa-lanatis rugosis, racemo simplici subspiciformi, verticillastris distinctis dense multifloris, bracteis ovatis acutis adpressis calycibusque villosa-lanatis.

N. tomentosa. Sieb. ! *Pl. exs.*

β *viridis*, basi subglabrata superne villosissima, foliis utrinque viridibus.

N. hirsuta. Linn. Spec. 798. non aliorum.

N. Scordotis. Linn. ! Spec. 798.

N. procumbens. Mill. ! Dict. n. 10.

Hab. in Creta Sieber ! β in Sicilia Linnæus, at dubia civis, verosimiliter plantæ Cretensis varietas hortensis. (v. s. sp. in herb. Endlicher, et s. c. var. β in herb. Linn., herb. Banks e hort. Cliff., et herb. Vahl.)

Herba pedalis, in exemplaribus sylvestribus ex omni parte lana densa subcanescente villosissima; in cultis basi subglabrata, superne villosissima. Folia vix pollicaria, crassiuscula, floralia sessilia, verticillastro vix longiora, cætera caulinis subconformia. Verticillastri in racemo 3-6-pollicari parum distantes, demum fere pollicem diametro. Calyces ovati, fructiferi inflati, dentibus subæqualibus lanceolato-subulatis. Corolla glabra, tubo tenui incurvo breviter exserto, fauce dilatata. Achenia ovato-triquetra, lævia.

The name of *N. hirsuta*, having been published in the first edition of the Species Plantarum, has the right of priority; but that name has been given by modern authors (misled by Boccone's wretched figure), to so many other species, and the present plant is so much better known under the name of *N. Scordotis*, that it will lead to less confusion to preserve the latter name, and entirely omit the former.

18. *N. CIRCINNATA* (Willd. Enum. Hort. Berol. 602).

Hab. in Cappadocia Willdenow.

"*N. spica terminali ovata, foliis ovatis cordatis crenatis petiolatis.*

"*Caules simplices, erecti, tripollicares. Folia petiolata, tripollicaria, ovata, profunde cordata, crenata. Spica ovata, solitaris, terminalis. Bracteæ ovatæ, acutæ.*" — Willd. l. c.

19. *N. SUPINA* (Stev. in Mem. Soc. Nat. Cur. Mosq. 3. 265).

Hab. in Caucaso orientali in lapidosis ad torrentem Chodjal Stevens, (*Bieberstein*), in alpebus Tufandagh inter fragmenta schisti C. A. Meyer.*

"*N. verticillis subsessilibus approximatis, bracteis subulatis calycem subæquantibus, foliis ovalibus subcordatis sessilibus villosis, caule decumbente. Verticillis terminalibus capitatis ab affinibus dignoscitur.*" — Stev. ex Bieb. Fl. Taur.-Cauc. 3. 391.

"*Planta mihi ex specimine sicco Steveniano tantum nota præcedenti (N. Musini) affinis spontanea quoque minus canescens. Folia non quidem penitus sessilia, sed brevissime petiolata, superiora quoque crenis paucioribus majoribus magisque inæqualibus incisa. Verticilli in meo specimine omnes terminales capitato-aggregati. Corolla tubo longo gracili, fauce ampla cum præcedente convenit.*" — Bieb. l. c.

"*N. villosa-pilosa, radice repente, caule subramoso suberecto, foliis subsessilibus ovatis oblongisve obtusiusculis crenato-dentatis, cymis subsessilibus in capitulum terminalem aggregatis, calycibus membranaceis bracteis subulatis subsuperantibus, tubo corollæ brevioribus, lobis acuminatis mucronatis.*" — Meyer Enum. Pl. Cauc.-Casp. 93.

* Mr. Meyer sent me under this name, by some accidental mistake, a specimen of *N. laxa*.

SECTIO III. STEGIONEPETA.

Cymæ in verticillastris multifloris condensatæ, inferiores sæpe pedunculatæ, superiores subspicatæ. Racemi simplices, vel rarius ramosi. Bracteæ calycem subæquantes vel superantes. Calyx nunc elongatus, incurvus, ore obliquo, dentibus lanceolatis subulatisve, superioribus majoribus, nunc fere rectus, dentibus subæqualibus. Corolla tubo vix vel breviter exserto, fauce inflata.

20. N. SIBTHORPII, adscendens vel erecta, basi ramosa, tomentosa vel lanata, foliis petiolatis ovatis obtusis crenatis cordatis rugosis moliter cano-tomentosis lanatisve, verticillastris densis multifloris, inferioribus distantibus, superioribus in spica oblonga condensatis, bracteis ovatis oblongisve subulato-aristatis calyces æquantibus, calycis ovati dentibus subæqualibus aristatis tubo æquilongis, corollis calyce vix duplo longioribus.

N. Italica. *Sibth. et Sm. ! Fl. Gr. 6. t. 548. non Linn.*

Hab. in montibus circa Athenas *Sibthorp !* prope Zara in Dalmatia *Zuccarini !* (v. s. sp. in herb. *Sibthorp et Martius.*)

Caules basi duri, decumbentes, sublignosi, ramosi, ramis nunc erectis, 1-2-pedalibus, nunc adscendentibus vix pedalibus, ramosis tetragonis cano-tomentosis. Spicæ ad apices ramorum densæ, 1-1½-pollicares, verticillastris paucis, sub spica distinctis. Folia breviter petiolata, ½-1-pollicaria, more *Marrubii* rugosa et sæpius lana laxa utrinque induta; floralia sessilia calyces æquantia, cæterum caulinis conformia. Bracteæ nervosæ, membranaceæ. Calyx ut in *M. italica* fere æqualis, at dentes profundius fissi. Species inter *Oxynepetas*, *Stegionepetas*, et *Pycnonepetas*, media.

21. N. ITALICA (Linn. ! Spec. 798), erecta, elata, tenuiter cano-pubescentibus, foliis petiolatis ovatis crenatis cordatis utrinque tenuiter canescentibus, racemis subsimplicibus, bracteis linearibus lanceolatisve rigidis calyce sublongioribus, calycis elongati subincurvi ore vix obliquo, dentibus lanceolatis acutis, superioribus submajoribus, corollis calyce vix duplo longioribus.

N. italica. *Jacq. Hort. Vind. 2. 51. t. 112. (var. bracteis latioribus brevioribus.)*

N. italica. *Reichb. Icon. Bot. Eur. 5. 50. t. 483.*

N. teucrioides. *Lam. Dict. 1. 711.*

N. marrubioides. *Willd. Enum. Hort. Berol. 2. 603.*

N. imbricata. *Lag. Spreng. ! Syst. 2. 729.*

N. orientalis. *Mill. ! Dict. n. 9.*

N. Calamintha. *Tausch. in Bot. Zeit. 1831. 1. 219. ?*

Cataria canescens. *Mæench. Meth. 388.*

Hab. in Hispania *Pavon !* in Italia *Linnæus et Auct*, sed in floribus Italicis etiam Napolitano et Siciliano deest, nec unquam exemplaria italica vidi. (*h. s. sp. comm. a cl. Lambert.*)

Caules 2-3-pedales, rigidi, parum ramosi. Folia vix pollicaria, obtusa vel acutiuscula, basi late cordata, interdum subhastata, leviter rugosa. Floralia infima conformia, suprema bracteæformia. Verticillastri omnes distincti, inferiores distantes, superiores approximati, omnes densi multiflori, cymis sessilibus vel breviter pedunculatis. Bracteæ numerosæ, 1-3-nerviæ, margine sæpe submembranaceæ, tenuiter pubescentes, nunc lanceolatæ calyce subbreviores, nunc lineares, rigide, calyces superantes. Calyces pubescentes, rigidi, striati, ore minus obliquo quam in præcedentibus, et dentibus lanceolatis rigidis, quasi medii inter calyces *Orthonepe-*

tarum et *Stegionepetarum*. Corolla purpurascens, tubo subincluso, fauce valde dilatata, labii inferioris lobo medio concavo crenato. Achenia minutissime ruguloso-punctata.

22. *N. DISTANS* (Royle! Benth. in Hook. Bot. Misc. 3. 379), erecta, elata, caule basi villosa, foliis petiolatis ovato-lanceolatis obtusis crenatis basi profunde cordatis rugosis subtus villosis, verticillastris densis inferioribus remotis supremis approximatis, bracteis lineari-lanceolatis calycem subæquantibus, calycis elongati incurvi ore obliquo, dentibus superioribus lanceolatis, inferioribus subulatis, omnibus setaceo-acuminatis, corollis calyce subduplo longioribus.

Hab. in Indiæ orientalis montibus Himalayensibus ad Mussooree et Syen Royle! (*h. s. sp. comm. a cl. Royle.*)

Affinis *N. italica*, differt racemo simplici depauperato, foliis inferioribus valde rugosis subtus dense villosis, et dentibus calycinis omnibus apice setaceis. Folia superiora pauca, remota, minora.

23. *N. CILIARIS* (Benth. in Wall. Pl. As. Rar. 1. 64), erecta, cano-pubescentia, foliis petiolatis lato-ovatis obtusis crenatis basi cordatis subtus vel utrinque cano-tomentosis, racemis subsimplicibus, bracteis ovatis vel lato-lanceolatis exterioribus calycem subæquantibus, calycis elongati pubescentis incurvi ore obliquo dentibus lanceolato-subulatis subpatentibus, corollis calyce subduplo longioribus.

Hab. in India orientali: in Napalia Herb. Hooker! versus Cashmere Royle! (*h. s. sp. comm. a cl. Royle, et v. s. c. in herb. Hooker.*)

Habitus et inflorescentia *N. ruderalis*, a qua differt foliis ramisque sæpius canescentibus, floralibus ovatis membranaceis, ante anthesin subimbricantibus et præsertim bractearum forma. Racemus fere semper simplex, et cymæ subsessiles. Folia caulina superiora parva remota in exemplaribus Royleanis, majora et cum floralibus infimis cæteribus conformia in speciminibus cultis ex Napalia, sed utraque ad eandem speciem referenda videntur.

24. *N. RUDERALIS* (Hamilt.; Benth. in Wall. Pl. As. Rar. 1. 64), suberecta, tenuiter pubescens, foliis petiolatis ovatis obtusis crenatis basi cordatis utrinque pubescentibus subviridibus, racemis subsimplicibus secundis, cymis densis inferioribus pedunculatis, bracteis subulatis exterioribus calyces æquantibus, calycis ovati pubescentis ore obliquo dentibus subulatis superioribus longioribus, corollis calyce dimidio longioribus.

Glechoma erecta. Roxb. Fl. Ind. 3. 7.

Thymus nepetoides. Don! Prod. Fl. Nep. 113.

Glechoma hindostana. Roth. Nov. Pl. Spec. 258?

Glechoma indicum. Spr. Syst. 2. 727.

Hab. in India Orientali: ad radices montium Napalensium Hamilton! in Napalia, Hurdwar, et Rajemahl Wallich! in Hindustania Heyne? (*h. s. sp. e Mus. Angl. Ind., et comm. a cl. Royle.*)

Caulis 1-2-pedalis, ramosus, obtuse tetragonus, pubescentia brevi subcanescens. Folia sesquipollicaria, utrinque molliter pubescentia nec tomentosa, basi late et profunde cordata. Cymæ subglobosæ, multifloræ. Pedunculi inferiores pollicares, superiores brevissimi, verticillastris superioribus in racemo denso unilaterali approximatis. Calyces membranacei, vix 2 lin. longi, molliter pubescentes. Corollæ parvæ, purpurascens. Specimina Hurduarensia diversa videntur, foliis minoribus, cymis laxioribus.

25. *N. CLINOPODIODES* (Royle! Benth. in Hook. Bot. Misc.

3. 379), adscendens, tenniter pubescens, foliis petiolatis ovatis obtusis crenatis basi late subcordatis utrinque viridibus tenuiter pubescentibus, racemis subsimplicibus, verticillastris laxiusculis multifloris subsecundis, bracteis subulatis calyce subbrevioribus, calycis tubulosi pubescentis ore obliquo dentibus superioribus lanceolatis, inferioribus subulatis, corollis calycem vix excedentibus.

Hab. in India: ad ripas fluminis Jumna *Royle!* (*h. s. c. comm. a cl. Royle.*)

Affinis *N. ruderali*, differt præcipue calycibus minoribus tenuioribus, et corollis minimis vix calycem excedentibus. Flores *Clinopodio repenti* non dissimiles, sed characteres omnino *Nepetæ*.

26. *N. LEUCOPHYLLA*, adscendens vel suberecta, ramis cano-tomentosis, foliis petiolatis ovatis rotundatisve crenatis basi truncatis vel cordatis supra viridibus rugosis subtus albo-tomentosis, racemis subsimplicibus secundis, cymis subsessilibus densis multifloris, bracteis subulatis calyce subbrevioribus, calycis tubulosi cano-pubescentis ore obliquo dentibus lanceolato-subulatis, superioribus longioribus, corollis calyce dimidio longioribus.

Hab. in India orientali: ad Mussooree *Royle!* (*h. s. sp. comm. a cl. Royle, et s. c. e Mus. Angl. Ind.*)

Ab affini *N. ruderali* differt præcipue foliis parvis rugosis subtus albis.

SECTIO IV. CATARIA.

Cymæ in verticillastris multifloris plerumque condensatæ, inferiores pedunculatæ. Racemi simplices vel paniculati. Bracteæ calyce breviores plerumque brevissimæ. Calyx elongatus, incurvus, ore obliquo rarius subrecto, dentibus lanceolatis, superioribus plerumque majoribus. Corolla tubo breviter exserto, fauce inflata.

27. *N. GRACILIFLORA* (Benth. in Wall. Pl. As. Rar. 1. 65), adscendens, glabra vel tenuiter pubescens, foliis petiolatis ovatis lanceolatisve obtusis crenatis basi cordatis utrinque tenuiter pubescentibus subtus subcanescentibus, racemis ramosis cymis laxissimis dichotomis, pedunculis utrinque ramisque elongatis filiformibus, bracteis subulatis calyce brevioribus, calycis ovato-tubulosi ore obliquo dentibus subulatis superioribus longioribus, corollis calyce vix duplo longioribus.

Hab. in India orientali: in provincia Hurdwar *Wallich!* Deyra Dhoon *Royle!* (*h. sp. e Mus. Angl. Ind., et comm. a cl. Royle.*)

Caules 1-2-pedales, basi ramosi, ramis tenuissimis. Folia pauca, longe petiolata, vix pollicaria, tenuia vix rugosa. Racemi ultrapedales, laxissimi, secundi. Cymarum rami eleganter incurvi. Bracteæ setacæ, 1-2, vel rarius inferiores (cymæ ramorum), fere 3 lin. longæ. Calyces pedicellatæ, 2½ lin. longæ. Corollæ parvæ, cœruleæ. Species gracillima, inter *Catarias* et *Stegionepetas* media.

28. *N. MICRANTHA* (Bunge! in Ledeb. Fl. Alt. 2. 401), adscendens, humilis, pubescens vel glabra, foliis petiolatis ovatis obtusis crenatis basi rotundatis utrinque pallidis, racemis laxis ramosis, bracteis pedicello vix longioribus, calycis tubulosi incurvi pubescentis ore

obliquo dentibus lanceolatis superioribus submajoribus, corollis calycem vix excedentibus.

N. micrantha. *Ledeb. Ic. Fl. Ross. Alt. t. 412.*

Hab. in Sibiriae jugo Altaico: in montibus Arkaul et Dolentara Bunge! (*h. s. sp. comm. a cl. Bunge.*)

Statura *N. micranthæ*, sed foliis longe petiolatis, cymis longe pedunculatis paucifloris, habitu graciliore, superficie glabriore, floribus minoribus, mihi sat distincta videtur.

It is with great diffidence that I consider this plant as distinct from the Caucasian one described by Meyer; but the specimens I have seen in various collections received from Professor Ledebour, and which I myself owe to the kindness of M. Bunge, are so different in appearance from those which M. Meyer has obligingly sent me from the Caucasus, that I have thought it better to describe them as two species than unnecessarily to confuse the diagnosis in this difficult genus by joining them together.

29. *N. CATARIA* (Linn.! Spec. 796), erecta, elata, cano-pubescent, foliis petiolatis ovatis acutis profunde crenatis basi cordatis supra viridibus subtus cano-tomentosis, racemis subramosis, verticillastris densis multifloris, bracteis pedicello vix longioribus, calycis ovati pubescentis subincurvi ore obliquo dentibus e basi lanceolata subulatis subpatentibus superioribus longioribus, corollis calyce dimidio longioribus.

Cataria vulgaris. *Mœnch. Meth. 387.*

N. vulgaris. *Lam. Fl. Fr. 2. 398.*

N. citriodora. *Becker! Fl. Francof. 218.*

N. minor. *Mill.! Dict. n. 2.*

N. americana. *Ræusch. Steud. Nom. Bot. 552.?*

β candida, foliis inciso-crenatis supra pallidis subtus candidis.

Hab. in Europa fere tota, præsertim australiori, et Asia media ad muros et sepes in ruderatis, &c.: in Scotia! Anglia! Suecia *Wahlenberg*, Gallia! Germania! Hispania! Sicilia *Gussone*, Italia *Tenore*, &c., in agro Byzantino *Sibthorp*! Chersonneso *Durville*, in regione Tauro-Caucasico *Bieberstein* et Caspico *C. A. Meyer*, in Sibiria *Ledebour*. Occurrit etiam in America septentrionali verosimiliter ex Europa allata. (*v. v. et h. s. sp.*)

Caules 2-3-pedales, tenuiter pubescentes vel tomentoso-canescents. Folia sesquipollicaria, rugosa; floralia infima subconformia, suprema parva bractæformia. Verticillastri subglobosi, superiores approximati, inferiores remoti. Cymæ inferiores breviter pedunculatæ. Calyces molliter pubescentes, breviores quam in præcedentibus. Corollæ albidæ.

30. *N. NEPETELLA* (Linn.? Spec. 797), erecta, pubescens vel cano-tomentosa, foliis breviter petiolatis lanceolatis crenatis basi rotundatis cordatisve utrinque cano-pubescentibus tomentosisve, racemis multifloris subsimplicibus, bracteis pedicello vix longioribus, calycis tubulosi incurvi ore obliquo dentibus lanceolatis superioribus majoribus, corollis calyce duplo longioribus.

α major, racemo elongato multifloro, floribus albidis vel purpurascens.

N. nepetella. *All. Fl. Ped. 1. 37. t. 2. f. 1.* Reichb. Icon. Bot. Eur. 3. 55. t. 261.*

* A wretched figure, much more like a *Stachys* than a *Nepeta*.

Cataria Nepetella. *Mæneh. Meth.* 388.

N. amethystina. *Desf. Poir. Dict. Suppl.* 3. 206.

N. paniculata. *Mill. ! Dict. n.* 4.

β *humilis*, racemo brevi denso, floribus albidis vel purpurascens.

N. lanceolata. *Lam. Dict.* 1. 710. *Reichb. Ic. Bot. Eur.* 6. 20. t. 586.

N. angustifolia. *Vahl ! Symb.* 1. 41.

N. graveolens. *Vill. Fl. Delph.* 2. 366.

N. arragonensis. *Lam. Dict.* 1. 703.

γ *incana*, foliis rugosioribus cano-tomentosis.

N. incana. *Ait. Hort. Kew.* 2. 285. *fide herb. Banks non Auct.*

Hab. in Europa australi, præsertim in montibus: in Hispania *Vahl ! Galloprovincia !* Helvetia australi *Reichenbach*, et Italia a Pedemontio *Allioni, Requien !* et Liguria *Reichenbach*, ad regnum Neapolitanum *Tenore* : α in umbrosis montosis ; β in siccioribus calidioribus. (*v. v. et h. s. sp.*)

Species, præsertim in hortis, valde variabilis. Caules in var. α sæpe 3-4-pedales, verticillastris ut in *N. Cataria* magnis densis multifloris in racemo longo dispositis; in var. β *humilis*, racemo vix 2-3-pollicari. Folia in omnibus varietatibus conformia, caulina pollicaria, ramealia minora, nunc utrinque molliter cano-tomentosa, nunc, præsertim in var. β , subviridia, tenuiter pubescentia, in omnibus varietatibus rugosa. Corolla sæpius duplo major quam in *N. Cataria*, albida, purpurascens vel cærulea.

The var. β is certainly very different from some specimens of the var. α ; but I have seen so many intermediate states, and the different characters are themselves so variable in each variety, that I have been unable to distinguish them as species. The var. γ differs from the larger specimens of the var. α by the more woolly and rugose leaves, but can scarcely be considered as a separate species.

31. *N. CYANEA* (*Stev. in Mem. Soc. Nat. Cur. Mosq.* 3. 265. sec. *Bieb.*), adscendens, humilis, paniculato-ramosa, ramis cano-tomentosis, foliis petiolatis parvis ovatis oblongisve crenatis rugosis utrinque cano-tomentosis, racemis numerosis brevibus secundis, bracteis brevissimis, calycis tubulosi incurvi cano-tomentosi dentibus sublanceolatis, superioribus longioribus, corollis calyce vix longioribus tubo incluso.

N. incana. *Bieb. Fl. Taur. Cauc.* 2. 40. et 3. 392. *Reichb. Ic. Bot. Eur.* 4. t. 305. et *Auct. plur. non Ait.*

N. acinifolia. *Spreng. Pug. Pl.* 1. 41. *Syst. Veg.* 2. 727. sec. *Bieb.*

N. mollissima. *Tausch. in Bot. Zeit.* 1831. 1. 219. ?

Hab. in Caucaso orientali: in glareosis ad torrentem Chodjal *Steven*, ad torrentem Terek et in locis lapidosis montosis prope acidulam Nartzana *C. A. Meyer.* (*h. s. c.*)

Caules ut in *N. Ucranico* trichotomo-paniculati, sed rami racemulis brevibus unilateralibus nec corymbulis terminati. Tota planta, præsertim calyces, tomento molli *incana*. Folia ut in *Marrubiis* nonnullis vel *Stachyde palæstina*, rugosa et *incana*. Cymæ paucifloræ, laxiusculæ. Racemuli pollicares, numerosissimi. Calyces 3-4 lin. longi, valde incurvi, dentibus muticis mollissimis. Corolla parva, cyanea vel albida ?

32. *N. MEYERI*, humilis, adscendens, ramis tenuissime pubescentibus, foliis petiolatis ovatis obtusis crenatis basi cordatis utrinque subviridibus subtus pubescentibus, racemis subsimplicibus multifloris, bracteis calyce multo brevioribus, calycis elongati incurvi pubescentis ore obliquo dentibus lanceolatis superioribus longioribus, corollis calyce vix dimidio longioribus, tubo incluso.

N. micrantha. Meyer! *Enum. Pl. Cauc.-Casp.* 92. non Bunge.

Hab. in Caucaso: in locis siccis lapidosis montium Talüsch prope pagum Swant *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

Inter *N. Mussini* et *Catariam* media. Caules semipedales. Folia caulina pollicaria; floralia infima subconformia, suprema minuta. Verticillastri numerosi, densi, multiflori, vix secundi; cymæ inferiores breviter pedunculatæ. Calyx *N. Mussini*, sed breviter pubescens nec lanatus. Corolla *N. Catariæ*, a qua differt statura humili, foliis obtusioribus subtus vix canescentibus, et dentibus calycinis lanceolatis.

33. *N. CRISPA* (Willd. Spec. 3. 50), erecta? pubescens, foliis petiolatis ovatis obtusis inciso-crenatis basi cordatis utrinque cano-pubescentibus, racemo subsimplici, bracteis pedicello vix longioribus, calycis elongati incurvi villosi ore obliquo dentibus lanceolatis superioribus majoribus, corollis calyce duplo longioribus, tubo breviter exserto tenui.

Hab. in Oriente *Willdenow.* (*h. s. c. et v. s. c. in herb. plur.*)

Affinis videtur *N. Catariæ*, sed diversa statura minore, foliis utrinque canis, et corollis fere duplo longioribus; a *N. Mussini* racemis vix secundis, calycibus villosis nec lanatis, et cymis subsessilibus.

I am very uncertain about the affinities of this plant, the only specimens I have seen being cultivated, and in a young state. Perhaps it may belong to the section *Macronepeta*.

34. *N. AGRESTIS* (Lois. Nouv. Not. 25?*), erecta, glabriuscula, foliis petiolatis ovato-lanceolatis inciso-dentatis basi subcordatis nervoso-rugosis utrinque viridibus, racemo elongato subsimplici, bracteis pedicello vix longioribus, calycis elongati incurvi villosi ore obliquo dentibus lato-lanceolatis superioribus majoribus, corollis calyce vix duplo longioribus, tubo breviter exserto.

Hab. in Corsicæ arvis *Robert (Loiseleur)*, in monte d'Oro *Requien!* (*h. s. sp. comm. a cl. Requien.*)

Caulis bipedalis, parum ramosus, basi foliosus, viscosus. Folia $\frac{1}{2}$ -1-pollicaria, subviscosa, cæterum glabra; floralia minuta. Verticillastri secundi, distantes; cymæ 5-7-floræ, breviter pedunculatæ, densæ. Calyces 3-4 lin. longi, virides, lana laxissima viscosa villosi. Corolla albida, paullo major quam in *N. Cataria*.

35. *N. AZUREA* (R. Br.! in App. to Salt. Abyss.), erecta, foliis sessilibus ovatis vel ovato-oblongis crenatis basi subcordatis rugosis subtus canescentibus, racemis simplicibus, cymis subsessilibus, verticillastris densis superioribus subspicatis, bracteis minutis, calycis subovati incurvi pubescentis ore obliquo dentibus lanceolatis acutis, superioribus longioribus, corollis calyce duplo longioribus.

Hab. in Abyssinia *Salt!* (*v. s. sp. in herb. Mus. Brit.*)

Exemplaria Saltiana pedalia, caule tenuiter tomentoso. Folia supra viridia, tenuissime pubescentia, juniora utrinque canescentia; floralia infima subconformia, superiora linearia bractæformia. Cymæ utrinque 6-12-floræ, dense dichotomæ. Calyces 2 lin. longi, striati, cærulescentes. Corolla cærulea? tubo breviter exserto, basi attenuato.

* " *N. foliis cordato-oblongis crenatis glabris, cymis paucifloris axillaribus racematim digestis, bracteis linearibus calyce villosio dimidio brevioribus.*"—*Lois. Fl. Gall.* 2. 8.

36. *N. RACEMOSA* (Lam.! Dict. 1. 711), erecta, pubescens, foliis petiolatis ovatis obtusis crenatis basi cordatis supra viridibus rugosis subtus canescentibus, racemis laxis subsimplicibus, cymis subsessilibus vel inferioribus pedunculatis paucifloris, bracteis calyce multo brevioribus, calycis elongati incurvi molliter lanati ore obliquo dentibus lanceolatis superioribus longioribus, corollis calyce duplo longioribus, tubo breviter exserto.

N. racemosa. Reichb. Icon. Bot. Eur. 6. 19. t. 585. ?

Hab. in Oriente Tournefort (Lamarck). (v. s. sp.? in herb. Vahl.)

A *N. Mussini* differt caule erecto: an ejus varietas? An huc referenda synonyma plura hortensia sub *N. Mussini* enumerata?

37. *N. MUSSINI* (Henkel. Adumbr. Pl. 15. ex Auct.), diffusa, ramis adscendentibus cano-pubescentibus, foliis petiolatis ovatis obtusis crenatis basi cordatis supra viridibus rugosis subtus canescentibus, racemis laxis simplicibus secundis, cymis subsessilibus paucifloris, bracteis calyce multo brevioribus, calycis elongati incurvi molliter lanati ore obliquo dentibus lanceolatis superioribus longioribus, corollis calyce duplo longioribus, tubo breviter exserto.

N. Mussini. Reichb. Icon. Bot. Eur. 6. 20. t. 587.

N. longiflora. Sims Bot. Mag. 23. t. 923. ? (male) non Vent.

N. salviæfolia. Pers. Syn. 2. 115.

N. cyanotricha. Tausch. in Bot. Zeit. 1831. 1. 218. ?

N. argentea, diffusa, incana, lamiifolia, teucroides, violacea, Willdenowiana, &c. Hortul.

Hab. in regione Caucasico-Caspico! in Iberiæ collibus sterilibus lapidosis Bieberstein. (h. s. sp. comm. a cl. Prescott.)

Folia in exemplaribus cultis fere *N. coloratæ*, in sylvestribus multo minora, rugosiora, et subtus magis incana. Cymæ sæpius utrinque 3-7-floræ, interdum multifloræ. Calyx magnitudine calycis *N. coloratæ*, at dentes minus acutæ, et semper plus minusve lana brevi molli alba vel cœrulescente indutus. Corolla *N. coloratæ* paullo minor, pallide cœrulescens.

38. *N. GRANDIFLORA* (Bieb. Fl. Taur.-Cauc. 2. 42), erecta, glabriuscula, foliis breviter petiolatis ovatis obtusis crenatis basi cordatis supra viridibus subtus pallidis vel canescentibus, racemis basi subramosis, cymis pedunculatis multifloris, bracteis calyce multo brevioribus, calycis elongati incurvi glabriusculi ore obliquo dentibus lanceolatis acutissimis superioribus longioribus, corollis calyce duplo longioribus, tubo breviter exserto.

N. grandiflora. Reichb. Icon. Bot. Eur. 3. 68. t. 279.

N. melissæfolia. Pers. Syn. 2. 115. et Auct. plur. non Lam.

N. lamiifolia. Hoffm. Hort. Mosq. ex Bieb.

N. colorata. Willd. Enum. Hort. Berol. 2. 602.

N. argentea, grandis, incana, teucroides, violacea, &c. Hortul.

Hab. in Caucasi totius graminosis montanis sylvaticis Bieberstein, C. A. Meyer, Klustine! Prescott! Besser! &c. (h. s. sp.)

Caules pluripedales, ramosi, nunc glabri, sæpius versus apicem tenuiter pubescentes. Folia caulina obtusa, subtus, præsertim juniora, tomento tenui sæpe canescentia, rarius concoloria. Racemi plurimi subramosi, semipedales pedalesve. Pedunculi cymarum inferiorum pollicares, superiorum 3-4-lineares. Cymæ laxæ. Flores, præsertim in racemis mediis, numerosi. Bractææ subulatæ, exteriores sæpe

calycis dimidium fere attingentes, interiores minutæ. Calyces tenuissime pubescentes, apice colorati, dentibus mollibus acutissimis. Corolla cœrulea, 7 lin. longa, incurva, tubo a calycis ore in faucem dilatato. Labium inferius basi supra pilosum, lacinia media obcordata, crenata, concava.

This plant is common in continental botanical gardens, where it appears to have mixed with *N. Mussini*, and produced a variety of hybrids, which have been published under various names, borrowed from most of the other species of this section; and, in general, less reliance is to be placed on the names of *Nepetæ* in various herbaria and gardens than of almost any other genus of the order.

39. *N. BETONICÆFOLIA* (Meyer! Enum. Pl. Cauc.-Casp. 92), erecta, subsimplex, villosa-tomentosa, foliis infimis petiolatis superioribus sessilibus ovato-lanceolatis crenatis basi cordatis utrinque viridibus molliter pubescentibus, racemis brevibus simplicibus, verticillastris omnibus densis, bracteis calyce multo brevioribus, calycis elongati villosi ore vix obliquo dilatato dentibus lanceolatis subæqualibus, corollis calyce duplo longioribus, tubo exserto basi attenuato.

Hab. in Caucasi montium altiorum Talüsches graminosis C. A. Meyer! (*h. s. sp. comm. a cl. Meyer.*)

A *N. grandiflora* differt caulis parte superiore foliis calycibus corollisque pubescentia molli tomentosis, et racemo brevi subspiciformi.

40. *N. SALVIÆFOLIA* (Royle! Benth. in Hook. Bot. Misc. 3. 379), erecta, cano-tomentosa, foliis petiolatis ovatis vel ovato-lanceolatis obtusis crenulatis basi rugosis utrinque molliter tomentosis supra canescentibus subtus albis, racemis laxis subsimplicibus, cymis pedunculatis elongatis multifloris, bracteis brevissimis, calycibus oblongis erectis subrectis pubescentibus, ore obliquo, dentibus lanceolatis superioribus majoribus, corollis calyce plus duplo longioribus.

Hab. in valle Cashmeriano Royle! (*h. s. sp. comm. a cl. Royle.*)

Caulis cano-tomentosus. Racemus viridior pubescens. Folia vix pollicaria, breviter petiolata, floralia parva, oblongo-cuneata. Verticillastri remoti. Cymæ utrinque 12-20-floræ, pedunculo communi circiter semipollicari, breviores quam in *N. grandiflora*. Corolla tenuis, 6-7 lin. longa.

41. *N. MELISSÆFOLIA* (Lam.! Dict. 1. 711. non Bieb.), erecta, pubescens, foliis petiolatis ovatis obtusis crenatis basi cordatis utrinque viridibus villosis superioribus sessilibus acutis, racemis laxis subsimplicibus, bracteis calyce brevioribus, calycis elongati incurvi pubescentis ore obliquo dentibus lanceolatis superioribus majoribus, corollis calyce vix duplo longioribus.

N. melissæfolia. Desf. Pl. Cor. Tourn. in Ann. Mus. Par. 10. 301. t. 23.

Hab. in Archipelagi Græci collibus aridis: in Creta Tournefort! Melos Durville. (*v. s. sp. in herb. Vahl. et Banks.*)

N. grandifloræ affinis. Caules circiter pedales, pilis subglandulosis pubescentes. Folia inferiora longe petiolata, limbo vix pollicari, basi profunde cordato, utrinque pilis subadpressis villosis, floralia lanceolata, acuta. Verticillastrorum infimorum cymæ longe pedunculatæ. Bractæ exteriores lanceolato-lineares calycem subæquantes, superiores minutæ. Calyx *N. grandifloræ*, subcoloratus, pubescens, minime canescens. Corolla multo minor quam in *N. grandiflora*. An ad *Macronepetas* referenda?

Specimen Tournefortianum in herb. Banks fere glabrum; Lamarkianum in herb. Vahl. villosum.

SECTIO V. MACRONEPETA.

Cymæ pedunculatæ paucifloræ. Racemi terminales, laxissimi, subramosi. Folia floralia superiora vel omnia bracteæformia. Calyx elongatus, ore obliquo, dentibus lanceolatis ovatisve, superioribus sublatis. Corollæ longe exsertæ, tubo tenui exserto, fauce inflata.

42. *N. MACRANTHA* (Fisch. Hort. Gorenk.), erecta, ramosa, subglabra, foliis breviter petiolatis ovato-lanceolatis serrato-crenatis basi truncatis subcordatisve utrinque viridibus, racemis elongatis laxiusculis, bracteis minutis, calycis elongati subincurvi ore obliquo dentibus lanceolatis superioribus majoribus, corollis calyce plus triplo longioribus, tubo longe exserto, basi attenuato.

Dracocephalum Sibiricum. Linn. ! Spec. 830. Pall. Fl. Ross. 3. t. 13. Bot. Mag. 47. t. 2185.

Moldavica elata. Mærch. Meth. 410.

Moldavica Sibirica. Mærch. ex Steud. Nom. Bot. 285.

Dracocephalum, &c. Gmel. Fl. Sib. 3. 234. t. 51.

Hab. in jugo Altaico frequens *Ledebour ! Bunge ! &c. (h. s. sp. comm. a cl. Prescott et Bunge.)*

Caules 2-3-pedales, glabri vel superne tenuiter pubescentes. Folia 2-4-pollicaria, utrinque viridia, superiora minora, subsessilia, floralia infima subconformia, suprema parva, bracteæformia, integerrima, lanceolata. Racemi pulchri secundi, simplices. Cymæ breviter pedunculatæ, 3-7-floræ. Calyces subsessiles, 4-6 lin. longi, subcolorati, ore valde obliquo, subbilabiato. Corolla speciosa cœrulea, 1½- vel fere 1½-pollicaris. Tubus basi tenuis, superne ampliatus, faux valde dilatata. Labium superius emarginato-bifidum, erectum, inferioris lobus medius bifidus, laciniis reflexis rotundatis. Antheræ sub apice filamenti insertæ, loculis ante anthesin parallelis, per anthesin divaricatis.

43. *N. GOVANIANA*, erecta, ramosa, tenuiter pubescens, foliis breviter petiolatis amplis oblongo-ellipticis crenatis basi rotundatis, racemis elongatis laxis subramosis, bracteis minutis, calycis elongati subincurvi ore obliquo dentibus lanceolatis superioribus majoribus, corollis calyce quadruplo longioribus, tubo tenuissimo longe exserto.

Dracocephalum Govanianum. Wall. ! Pl. As. Rar. 2. 65.

Hab. in Indiæ Orientalis montibus Himalayensibus : in Cashmeria, Kedarkonta, et Kanaour *Royle ! Sirmore et Kamaon Wallich ! (h. s. sp. e Mus. Angl. Ind. et comm. a cl. Royle.)*

Valde affinis *N. macranthæ*, a quo vix differt foliis obtusioribus basi rarius truncatis, racemis subramosis, cymis inferioribus longius pedunculatis, et corollis tenuioribus proportionem calycis longioribus.

44. *N. ERECTA*, caule erecto pubescente, foliis petiolatis ovato-lanceolatis obtusis crenatis rugosis basi cordatis subtus subcanescentibus, racemis elongatis laxiusculis, bracteis minutis, calycis elongati subincurvi ore obliquo dentibus superioribus latioribus, corollis calyce plus duplo longioribus, tubo longe exserto, basi attenuato.

Dracocephalum erectum. Royle ! Benth. in Hook. Bot. Misc. 3. 380.

Hab. in Indiæ Orientalis montibus Kanaourensibus *Royle ! (h. s. sp. in herb. Royle.)*

Affinis *N. macranthæ*, differt foliis rugosis subtus canescentibus, et floribus paullo minoribus. An cum *N. Govaniano* *N. macranthæ* varietas?

45. *N. GLABRA*, adscendens, glaberrima, foliis petiolatis ovatis acutis basi cuneatis inferioribus serratis superioribus integerrimis utrinque viridibus, bracteis ovatis laxis calyce brevioribus, racemis laxissimis paucifloris subpaniculato-ramosis, calycis elongati incurvi glabri ore obliquo dentibus lanceolatis superioribus majoribus, corollis calyce plus duplo longioribus, tubo tenuissimo longe exserto.

Hab. in Oriente *Herb.!* (v. s. sp. in herb. Mus. Par., et s. c. in herb. Vahl.)

A *N. longiflora* differt glabritie et racemis gracilibus elongatis ramosis; ab omnibus sequentibus foliorum forma.

46. *N. LAXA*, suberecta, glaberrima, foliis petiolatis ovato-rotundatis basi late subcordatis inciso-crenatis utrinque viridibus, racemis laxissimis paucifloris subramosis, calycis elongati incurvi subglabri ore obliquo dentibus oblongis superioribus sublatioribus, corollis calyce triplo longioribus, tubo tenuissimo longe exserto.

N. longiflora. Meyer Enum. Cauc.-Casp. 92? * non Vent.

Hab. in Caucaso *C. A. Meyer!* in locis lapidosis siccis montium Talüsch? (h. s. sp. comm. a cl. Meyer et s. c. e sem. a cl. Fisch. comm.)

Caules 2-3-pedales, basi subdecumbentes, superne subnudi. Folia pauca, inferiora longe petiolata vix pollicaria, superiora parva, subsessilia; floralia minuta, oblongo-linearia, omnia crassiuscula, subtus venosa. Cymæ remotæ, inferiores longissime, superiores breviter pedunculatæ, omnes 3-5-floræ, vel rarius subdichotomæ, vel in racemos abeuntes. Bracteæ calyce multo breviores, subcoloratæ, laxæ. Calyx tenuissimus, 4 lin. longus, glaber vel sæpius pilis paucis brevibus pubescens, coloratus, dentibus præsertim inferioribus profunde fissis obtusis vel breviter mucronulatis. Corolla cœrulea, 10-12 lin. longa.

47. *N. LONGIFLORA* (Vent. Hort. Cels. 66. t. 66), adscendens, subcanescens, foliis breviter petiolatis superioribus sessilibus omnibus ovatis crenatis basi cordatis rugosis utrinque pallidis, racemis elongatis paucifloris, bracteis pedicellum vix æquantibus, calycis elongati subincurvi pubescentis ore obliquo dentibus lanceolatis superioribus latioribus, corollis calyce subtriplo longioribus, tubo tenuissimo longe exserto.

Hab. in Persia inter Teheran et Ispahan *Olivier!* (h. s. c. et v. s. sp. in herb. Mus. Par.) †

Caules basi decumbentes, foliosi, ramosi, superne fere nudi, uti foliorum pagina utrinque tomento tenuissimo subcanescentes. Folia pollicaria, ramealia minora, caulina superiora remota, parva, sessilia; floralia minuta, bracteæformia. Verticillastri pauci, remoti. Cymæ utrinque pedunculatæ, 3-5-floræ. Calyx sæpe cœrulescens, cæterum uti corolla omnino *N. septemcrenatæ*.

48. *N. BREVIFOLIA* (Meyer! Enum. Pl. Cauc.-Casp. 93), decumbens, pubescens, foliis longe petiolatis subrotundis crenatis basi late cordatis subtus vel utrinque subcano-pubescentibus, racemis paucifloris

* I received this species from Mr. Meyer under the name of *N. supina*, evidently a mistake in writing out the labels. I cannot refer it to any one described by him in his *Enumeratio*, and therefore presume it to be his *N. longiflora*. The true *N. longiflora* has not, I believe, been found so far north.

† I describe this plant from cultivated specimens from French gardens; but from my notes, taken several years ago in the Paris herbarium, I believe it to be Olivier's plant.

laxis, bracteis calyce brevioribus, calycis elongati incurvi pubescentis ore obliquo dentibus lanceolatis superioribus latioribus, corollis calyce plus duplo longioribus, tubo tenui longe exserto.

N. longiflora. *Fisch. ex Hortul.*

Hab. in alpihus Caucasice orientalibus Tufandagh *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

Habitu *N. longifloræ* affinis, sed humilior, nec sæpius superne nuda. Folia inferiora vix semipollicem longa, et parum latiora petiolo pollicari, superiora et floralia inferiora conformia, sessiliora, suprema subsessilia, bracteæformia. Cymæ inferiores longe pedunculatæ, superiores subsessiles, 3-5-floræ. Bracteæ lanceolatæ, acutæ, exteriores interdum calyces subæquantes. Calyces sessiles, fere 4 lin. longæ, pilis paucis hispido-pubescentes, apice colorati, ore valde obliquo subbilabiato. Corolla cœrulea, incurva, 8-9 lin. longa, forma omnino *N. longifloræ*. In exemplaribus hortensibus flores pauciores, racemo laxiori: an revera ad hanc speciem referendæ?

49. *N. SEPTEMCRENATA* (Ehrenb. MSS.), erecta, subviscoso-villosa, foliis inferioribus petiolatis, superioribus sessilibus omnibus rotundatis obtusis crenatis basi cordatis utrinque viridibus, racemo elongato paucifloro, bracteis pedicello vix longioribus, calycis elongati subincurvi ore obliquo dentibus lanceolatis superioribus latioribus, corollis calyce plus duplo longioribus, tubo tenuissimo longe exserto.

Hab. in Africa orientali: in Ægypto *Ehrenberg*, in deserto Sinaico *N. Bové!* (*h. s. sp. a cl. Bové lect., et h. s. c. e sem. a cl. Ehrenberg miss.*)

Caules pedales, basi foliosi. Folia *N. Glechomæ* at tenuiora, uti caules et calyces pubescentia viscosa tenui induta. Floralium infima caulinis subconformia, suprema minuta, integerrima. Verticillastri valde remoti. Cymæ inferiores pedunculatæ, 3-7-floræ. Bracteæ plerumque brevissimæ. Calyx fere 3 lin. longus, viridis, dentibus acutis sed muticis. Corolla 7-8 lin., cœrulea, gracilis. Labium superius bifidum, inferioris lobus medius vix crenatus. Stamina deflorata lateraliter recurvata.

50. *N. TEUCRIIFOLIA* (Willd. Enum. Hort. Berol. 602).

Hab. in Armenia *Willdenow*.

“*N. cymis pedunculatis paucifloris racemosis, foliis ovatis cordatis obtusis petiolatis dentatis pubescentibus.*

“*Folia longissime petiolata non serrata, sed utroque latere dentibus 4-6 grossis instructa, pubescentia, semipollicaria. Racemus e cymis paucifloris dissitis compositus.*”—*Willd. l. c.*

51. *N. LAMIIFOLIA* (Willd. Enum. Hort. Berol. 602).

Hab. in Armenia *Willdenow*.

“*N. cymis pedunculatis multifloris, corollæ tubo filiformi curvato, foliis ovatis cordatis obtusis petiolatis serratis pubescentibus.*

“*Planta facie Lamii amplexicaulis tota pubescens. Folia petiolata, 4-linearia. Caules 4-5-pollicares, adscendentes. Cymæ axillares, pedunculatæ, multifloræ. Flores in apice caulis verticillato-capitati. Corollæ tubus longissimus, filiformis, curvatus, superne dilatatus.*”—*Willd. l. c.*

SECTIO VI. GLECHOMA.

Glechoma. *Linn. et Auct.*

Chamœclema. *Mœnch. Meth. 387.*

Verticillastri axillares, pauciflori, foliis floralibus caulinis conformibus. Calyces tubulosi, subincurvi, ore obliquo, dentibus lanceolatis

aristatis, superioribus productionibus. Corollæ exsertæ tubo extra calycem dilatato.—Herba repens.

52. N. GLECHOMA, procumbens, foliis petiolatis rotundatis crenatis basi cordatis utrinque viridibus, floralibus conformibus, verticillastris axillaribus paucifloris, bracteis pedicellum vix æquantibus, calycis elongati subincurvi villosi ore obliquo dentibus lanceolato-subulatis, superioribus majoribus, corollis calyce triplo longioribus.

Glechoma hederacea. Linn.! Spec. 807. Hook. Fl. Lond. v. 2. ic.

Chamæclema hederacea. Mœnch. Meth. 393.

Chamæclema vulgare. Vaill. Bot. Par. t. 6. f. 4, 5, 6.

Calamintha hederacea. Scop. Fl. Carn. n. 730.

Glechoma micrantha. Bonningh. ex Reichb. Fl. Germ. Exc. 316.

β hirsuta.

Glechoma hirsuta. Waldst. et Kit.! Pl. Rar. Hung. 2. 124. t. 119.

Glechoma magna. Merat. Fl. Par. 225.

γ parviflora.

Glechoma heterophylla. Opiz! Reichb. Fl. Germ. Exc. 316.

Glechoma intermedia. Schrader!

Hab. in Europa omni et Asia boreali ad sepes et fossas, in sylvestribus, ruderatis, &c.: a Scotia! Suecia *Wahlenberg*, et Petropoli *Sobolewski*, ad Lusitaniam *Brotero*, Hispaniam! Siciliam *Gussone*, Italiam! Græciam *Sibthorp*! Bulgariam *Clarke*, in Rossia Europæa! et Sibiria *Ledebour*. *β* in umbrosis montanis præsertim Germanicis. Hæc species occurrit etiam in America septentrionali, at verosimiliter ex Europa allata. (*v. v. et h. s. sp.*)

Caules elongati, prostrati, basi radicales, rami floriferi adscendentes, plus minusve villosi. Folia circiter pollicaria, suprema minora at conformia. Verticillastri omnes distantes. Flores folio plerumque breviores. Pedicelli breves. Calyces 3-4 lin. longi, fructiferi reflexi. Corollæ cœruleæ, 6-7 lin. longæ, vel in var. *γ* vix 4 lin. Antherarum loculi divergentes, nec omnino divaricati, et idcirco antheræ cruciatæ dicuntur, quæ porro in pluribus aliis speciebus occurrunt. Var. *β* hirsutior est, var. *γ* omnibus partibus minor et glabrior.

SECTIO VII. ORTHONEPETA.

Florum cymæ densæ, breviter pedunculatæ. Verticillastri distantes, racemosi. Racemi simplices vel sæpius paniculato-ramosi. Calyces ovato-tubulosi, subrecti, dentibus subæqualibus, subulatis, rigidis, nec pungentibus. Corollæ exsertæ. Herbæ elatæ, foliis subsessilibus.

53. N. LATIFOLIA (DC. Fl. Fr. 3. 528), erecta, elata, pubescens, foliis sessilibus ovatis obtusis crenatis basi subcordatis utrinque viridibus, racemo elongato multifloro, bracteis lanceolato-subulatis calyce brevioribus, calycis ovati pubescentis ore dentibusque strictis subæqualibus, corollis calyce duplo longioribus.

N. grandiflora. Lapeyr.! Hist. Abr. Pl. Pyr. 329.

N. cœrulea. Ait. Hort. Kew. 2. 285. fide herb. Banks.

Hab. in Europa austro-occidentali: in Hispania *Pavon*! in Pyrenæis orientalibus! (*v. v. et h. s. sp.*)

N. nudæ affinis, sed certe distincta. Pubescentia, præsertim in exemplaribus sylvestribus, sæpe viscosa. Folia fere duplo majora, rugosiora, et proportionè latiora, quam in *N. nuda*. Racemi longi, densi, parum ramosi. Cymæ dichotomæ. Bracteæ interdum calycibus subæquales. Calyces fructiferi 3 lin. longi, uti bracteæ sæpe cærulescentes. Corolla cærulea, extus pubescens.

54. *N. NUDA* (Linn. ! Spec. 797), erecta, elata, glabriuscula, foliis sessilibus vel vix petiolatis oblongis crenatis basi subcordatis utrinque viridibus, racemis multifloris paniculatis, bracteis pedicello vix longioribus, calycis fructiferi ovati pubescentis ore dentibusque strictis subæqualibus, corollis calyce dimidio vel duplo longioribus.

α grandiflora, corollis sæpius purpurascentibus vel cærulescentibus.

N. pannonica. Jacq. *Fl. Austr.* 2. 18. t. 129. et *Auct. an Linn. Spec.* 797. ?

N. paniculata. Crantz. *Stirp. Austr.* 270.

N. violacea. Vill. *Fl. Delph.* 2. 367. et *Auct. plur. an Linn. Spec.* 797. ?

Cataria nuda. Mæench. *Meth.* 388.

Cataria violacea. Mæench. ex Steud. *Nom. Bot.* 553.

β parviflora, corollis sæpius albis.

N. pannonica. Linn. *Spec.* 797. ?

N. nuda. Jacq. *Fl. Austr.* 1. 17. t. 24.

N. Ucrania. Bieb. *Fl. Taur.-Cauc.* 2. 41. et *Auct. plur. non Linn.*

N. alba. Desf. ex Steud. *Nom. Bot.* 552.

Cataria paniculata. Mæench. ex Steud. *Nom. Bot.* 553.

Hab. in Europæ australis præsertim orientalis et in Asiæ Sibiricæ apricis cæduis graminosis sylvaticisque præsertim montosis: in Hispania *Pavon* ! Galloprovincia *Requien* ! in Italia Pedemonte *Requien* ! ad regnum Napolitanum *Tenore*, in monte Parnasso *Sibthorp* ! Germania Australi ! et Austria *Jacquín*, Hungaria *Lang* ! Podolia *Besser*, Tauria *Bieberstein*, Caucaso ! monte Beschtau et montibus Talüsche *C. A. Meyer*, et in jugo Altaico *Ledebour* ! (*h. s. sp.*)

Caules 2-4-pedales, obtuse tetragoni, glabri vel tenuissime pubescentes. Folia 1½-2-pollicaria, subrugosa, subtus reticulato-venosa, sæpius glabra vel subtus tenuissime pubescentia; floralia infima conformia gradatim minora, superiora bractæformia, linearia, acuta, integerrima, vix pedunculo longiora, ramealia interdum breviter petiolata. Panicula sæpe sesquipedalis, rarius semipedalis. Cymæ multifloræ, pedunculi inferiores fere 2-6 lin., superiores vix semi-lineam longi, rami et pedicelli nunc brevissimi, nunc elongati. Bracteæ vix calycis tertiam partem æquantes, subulatæ, rigidæ. Calyces floriferi, tenues, tubulosæ, fructiferi inflati, ovati, 2 lin. longi, pubescentes. Corolla alba vel cærulescens, 4-6 lin. longa. Tubus inclusus. Faux ampla. Labium superius breve erectum, concavum, inferioris lobi laterales, patentes, subreflexi, integerrimi, infimus maximus, emarginatus, crenatus, concavus.

SECTIO VIII. OXYNEPETA.

Flores distincti vel ad apices ramorum glomerati, corymboso-paniculati. Calyces tubulosi, subrecti, dentibus subæqualibus, subulatis, subpungentibus. Corollæ dentes calycinos æquantes vel vix superantes.—Herbæ humiles. Folia plerumque petiolata.

This section is very distinct in habit from the rest of the genus; but the characters are so similar to those of the section *Orthonepeta*, that it cannot be considered as a separate genus.

56. *N. PARVIFLORA* (Bieb. *Fl. Taur.-Cauc.* 2. 41), suberecta,

paniculata, villosa, foliis petiolatis ovatis vel ovato-lanceolatis obtusis serrato-crenatis basi rotundatis cordatisve utrinque viridibus, cymis laxis trichotome paniculatis, bracteis linearibus calycem æquantibus, calycis ovato-tubulosi pubescentis ore æquali dentibus linearibus rigidis corollam superantibus.

Hab. in Tauriæ et Caucasi etiam Iberici campis collibusque siccis *Bieberstein*, prope Cherson *Besser*! Odessa *Lang et Szovitz*, in montibus Talüsches *C. A. Meyer*. (*h. s. sp.*)

Caulis pedalis. Rami divaricati, tetragoni, basi pilis patentibus villosi, sub floribus tenuiter pubescentes. Folia inferiora 1-1½-pollicaria, grosse serrato-crenata, rugosa, supra tenuiter pubescentia vel fere glabra, subtus laxè villosa, superiora gradatim sessiliora, integriora, minora, angustiora, et acutiora, glabriora, suprema bractæformia, uti bractæ calyces subæquantia, linearia, acutissima, integerrima, uninervia, vix pubescentia. Flores 3-5 ad apices ramulorum paniculæ subsessiles. Calyces 3 lin. longi, erecti, profunde striati. Dentes (in calyce fructifero) tubum subæquantes, acutissimi, subpungentes. Corollæ minutæ, cœruleæ? extus pubescentes.

56. *N. UCRANICA* (Linn.! Spec. 797. non Auct.), erecta, paniculata, subglabra, foliis caulinis subsessilibus oblongo-lanceolatis obtusis subdentatis basi rotundato-cuneatis utrinque viridibus, cymis laxis trichotome paniculatis, bracteis linearibus, calycis elongati hispidi ore subæquali dentibus lanceolato-linearibus acutis corollam subæquantibus.

Teucrium Sibiricum. Linn. Spec. 788.

N. Sibirica. *Bieb. Fl. Taur.-Cauc.* 2. 41. in Obs.

Hab. in Sibiria circa Orenburg *Prescot*! in deserto Soongoro-Kirghisico *Ledebour*, ad Irtim in jugo Altaico *Bunge*! (*h. s. sp.*)

Habitu *N. parvifloræ* similis, sed distincta caule foliisque glabris, vel tomento tenuissimo subcanescentibus, foliis tenuibus nec rugosis, et calycibus fere duplo longioribus sæpius hispidulis. Tota planta sæpe in parte superiore purpurascit. Corollæ cœruleæ; tubus tenuis, inclusus; faux inflata vix incurva; limbi labium superius subrectum, inferioris lobi laterales, integerrimi, vix patentes, dentes calycinis æquantes, lobus medius duplo major, orbiculatus, concavus, crenatus.

57. *N. HELIOTROPIFOLIA* (Lam.! Dict. 1. 711), erecta, paniculata, canescens, foliis brevissime petiolatis oblongis subintegerrimis basi angustatis utrinque canescentibus, cymis laxis trichotome paniculatis, bracteis linearibus, calycis elongati hispidi ore subæquali dentibus lanceolato-linearibus acutis corollam subæquantibus.

Satureia stricta. Russ.! Nat. Hist. Alep.

Hab. in Oriente *Lamarck*! in Syria prope Aleppo *Russell*! (*v. s. sp. in herb. Banks et Mus. Par.*)

N. Ucranicæ simillima, et vix differt foliis subintegerrimis basi angustatis et ramis, foliis, calycibusque pubescentia vel tomento brevi canescentibus.

58. *N. PUNGENS* (Benth. in Herb. Kunth. MSS.), erecta, glabriuscula, foliis petiolatis ovatis acutis basi angustatis subcarnosis utrinque subcanescentibus, racemis subsimplicibus, bracteis foliaceis subspinosi calyce longioribus, calycis elongati ore subæquali dentibus linearibus rigidis, corollis calycem vix superantibus.

Hab. in Persia inter Bagdad et Kermancha *Olivier et Bruguère*! (*v. s. sp. in herb. Kunth, Mus. Par. et DC.*)

June 1834.

3 s

Caulis erectus, herbaceus, basi ramosus, vix pubescens, semipedalis. Folia (*Chenopodii*) petiolata, ovata, acuta, et acute dentata, basi attenuata, in petiolum decurrentia, carnosula, glabra, subcanescentia, petiolis basi dilatatis; floralia conformia, minora. Verticillastri distincti (30-flori et ultra), inferiores remoti, supremi approximati, spicati. Bracteæ foliaceæ, nervosæ, acutissimæ, rigidæ, subspinosæ, calyce longiores. Calyces tubulosi, 13- sub- 15-nervi, dentibus 5 linearibus subæqualibus, pubescentes, intus fauce nuda, maturatione basi inflati. Corolla calyce vix longior, tubo tenui, fauce non inflata; labium superius ovatum, fornicatum, erectum, integrum, inferius 3-lobum, lobo medio crenato. Stamina 4, adscendentia. Antheræ 2-loculares loculis divaricatis. Stylus bifidus, lobis subulatis. Achenia sicca, lævissima.

59. *N. PUSILLA*, pumila, erecta, tenuiter pubescens, foliis paucis parvis ovatis acute serratis, floralibus supremis bracteisque lanceolato-linearibus acutissimis pungentibus, floribus cymoso-capitatis subcorymbosis, calycis tubulosi pubescentis dentibus subæqualibus acutissimis corollam superantibus.

Ziziphora pungens. *Bunge!* in *Ledeb. Fl. Alt.* 1. 23. *Ledeb. Ic. Pl. Fl. Ross. Alt. t.* 124.

Hab. in Altaico monte Arkaul *Meyer!* (*h. s. sp. comm. a cl. Bunge.*)

Caules filiformes, subsimplices, 3-4-pollicares, apice ramis paucis corymbosi. Folia 3-4-linearia, subglabra, utrinque viridia, serraturis hinc inde aristulatis; floralia infima conformia, interiora vel bracteæ integerrima basi angustata, at sessilia, calyces æquantia. Cymæ 3-5, irregulares, densæ, capituliformes, paucifloræ. Calyces sessiles, 3 lin. longi, basi subinflati. Corolla minuta, tenuis, at omnino *Nepetarum* hujus sectionis. Stamina certo didynama, inferioribus brevioribus.

Species dubiæ.

N. FOLIOSA (Moris. Stirp. Sard. Elench. ex Linnæa 5, Litt. Ber. 97.)

Hab. in Sardinia montibus calcareis Oliena *Moris*.

“*N. villosa-viscosa*, foliis ovatis acutiusculis rugosis serratis basi cordato-cuneatis, inferioribus petiolatis, cymis axillaribus paucifloris brevi-pedunculatis summis congestis, omnibus foliosis, foliis lanceolatis, calycibus striatis, 5-fidis, acuminatis.—Corolla cœrulea. Species viscositate cymisque foliosis a cæteris maxime distinguenda.”—*Moris ex Linnæa l. c.*

An *N. latifolia*, vel ei affinis?

N. JAPONICA (Willd. Spec. Pl. 3. 52.)

N. incana. *Thunb. Fl. Jap.* 244.

Hab. in Japonia summis montibus magnæ Kosido *Thunberg*.

“*N. florum* paniculis axillaribus, foliis pedunculatis ovatis serratis tomentosis. “Caulis herbaceus, inferne teretiusculus, decumbens, nudus, superne obtuse tetragonus, erectus, tomentosus, indivisus, spithamæus vel paullo ultra. Folia opposita, petiolata, ovata, acuta, serrata, utrinque tomentosa, sed subtus magis albida, patentia, semipollicaria, superioribus sensim minoribus. Petioli tomentosi, lineam longi. Flores paniculati. Paniculæ in supremis foliorum axillis oppositæ, trifidæ, fastigiatae. Pedunculus lineam longus, pedicellis axillaribus. Stamina flore duplo longiora.”—*Thunb. l. c.*

N. MACRURA (Ledeb. ex Spr. Syst. 2. 729).

Hab. in Sibiria *Sprengel*.

"N. cymis multifloris, patentibus, paniculatis subaphyllis, calycibus incanis striatis, foliis subcordato-triangularibus, longe petiolatis, serratis, canescentibus, summis integerrimis."—*Spreng. l. c.*

In Flora Altaica deest.

N. NEPALENSIS (*Spreng. Syst. 2. 730*).

Hab. in Nepalia *Sprengel*.

"N. spicis compositis subsecundis, calycibus incanis, foliis lanceolatis medio serratis petiolatis subreflexis utrinque attenuatis integerrimis."—*Spreng. l. c.*

N. CANESCENS *Ræusch. ex Steud. Nom. Bot. 552.* An *Hyptis canescens*?

N. PATAVINA *Fisch. ex Steud. l. c.* An *Melissa patavina*?

N. PAUCIFLORA. *Spreng. ex Steud. l. c.* In Systemate *Sprengelii* omitta.

N. SIDÆFOLIA *Ræusch. ex Steud. Nom. Bot. 553.* An *Hyptis polyantha*?

N. SUAVEOLENS. *Ræmer. ex Steud. l. c.* An *Hyptis suaveolens*?

Species e genere excludendæ.

N. AMBOINICA *Linn.* = *Anisomeles ovata*.

N. ARISTATA *Rich.* = *Hyptis pectinata*.

N. CRETICA *Dietr.* = *Micromeria marifolia*.

N. CROATICA *Spreng.* = *Satureia rupestris*.

N. DISTICHA *Blume* = *Anisomeles ovata*.

N. INDICA *Burm.* = *Leucas decumbens*.

N. INDICA *Linn.* = *Anisomeles ovata*.

N. LOPHANTHA *Fisch.* = *Lophanthus chinensis*.

N. MADAGASCARIENSIS *Lam.* = *Plectranthus rotundifolius*?

N. MALABARICA *Linn.* = *Anisomeles malabarica*.

N. MARIFOLIA *Cav.* = *Micromeria marifolia*.

N. MUTABILIS *Rich.* = *Hyptis spicata*.

N. PECTINATA *Linn.* = *Hyptis pectinata*.

N. PERSICA *Poit.* = *Hyptis pectinata*.

N. SCORDITIS *Viv.* = *Ballotæ* sp.

N. SERPYLLIFOLIA *Bieb.* = *Micromeria marifolia*.

N. VERSICOLOR *Trev.* = *Craniotome versicolor*.

N. VIRGINICA *Linn.* = *Pycnanthemum lanceolatum*.

GLECHOMA GRANDIFLORA *DC.* = *Stachys corsica*.

LXVIII. MARMORITIS.

Marmoritis. *Benth. in Hook. Bot. Misc. 3. 377.*

Calyx 13-15-nervius, tubuloso-campanulatus, profunde quinque-dentatus, dentibus æqualibus acutis. Corolla calyce brevior, labio superiore erecto, bifido, plano, inferioris lobis lateralibus erectis, medio patente lato crenulato. Stamina 4, adscendentia, didynama, inferioribus brevioribus. Antheræ biloculares, loculis parallelis. Stylus breviter bifidus, lobis subæqualibus subulatis, apice stigmatiferis. Achenia sicca, lævia, nuda.

A small Himalayan plant, very nearly allied to *Nepeta*, of which, like the other genera of this tribe, it might be considered a section.

* Synonymon supra p. 34. omisum.

1. *M. ROTUNDIFOLIA* (Royle. Benth in Hook. Bot. Misc. 3. 377).

Hab. in India Orientali in montibus provinciæ Kanaour *Royle!* (*h. s. sp. comm. a cl. Royle.*)

Caulis basi crassus, perennis, ramosus. Rami herbacei procumbentes, semipedales, subsimplices, tomentoso-villosi, apice dense foliosi. Folia fere *Lamii amplexicaulis*, reniformia, omnia petiolata, rugosa, crenata, et utrinque, præsertim ad paginam inferiorem, tomento albo laxiusculo lanata. Verticillastri pauciflori, secundi, in axillis foliorum superiorum dispositi et plerumque petiolis breviores. Bracteæ lanceolatæ calyce subbreviores. Calyces tomentoso-pubescentes; dentes tubo æquales, acuti sed non spinosi. Planta habitu *Lamium amplexicaulem* et quodammodo *Nepetam Glechomam* refert, characteribus *Dracocephalis palmatifolii* affinis.

LXIX. DRACOCEPHALUM.

Dracocephalum. Linn. Gen.

Moldavica et Zornia. Mœnch. Meth. 410.

Ruyschiana. Mill. Dict.

Calyx tubulosus, 13-15-nervius, rectus vel rarius incurvus, ore recto vel æquali, 5-dentato, dente supremo latiore sæpius maximo, 3 superioribus interdum in labio superiore coalitis. Corolla tubo basi tenui incluso vel sæpius exserto, fauce amplissima, limbo bilabiato, labio superiore erecto subconcavo emarginato, inferiore patente trifido, lobo medio maximo subbifido. Stamina 4, didynama, inferioribus brevioribus, adscendentia. Antheræ per paria approximatæ, biloculares, loculis divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis, apice stigmatiferis. Achenia sicca, lævia, nuda.—Herbæ perennes. Verticillastri pluriflori, axillares vel in spica terminali approximati. Bracteæ sæpius foliaceæ, aristato-dentatæ. Corollæ sæpius amplæ, cœrulescentes vel purpurascentes, rarius albidæ vel flavescentes?

An European, but more especially North Asiatic genus, with one North American species. It is closely allied to *Nepeta*, from which it is said to differ “calyce bilabiato,” but into which it has been usual to put all the large-flowered *Nepeteæ* without any attention to that character, with one or two small-flowered ones that have it, and a few others that have nothing to do with either, excepting the very general and vague character of “faux corollæ ampliata.” I have entirely rejected the latter from the tribe of *Nepeteæ*, and, adopting Mœnch’s *Cedronella* for those which have parallel-celled anthers, have, amongst the remainder, referred to *Nepeta* all such as have neither a bilabiate calyx, nor the upper tooth of the calyx ovate, nor the broad bracts with subulate teeth which are almost characteristic of *Dracocephalum*. The distinction between the two genera appears thus somewhat more natural, as well as better defined; but I confess, that if it had not been for the inconvenience of changing so many names, I should have been better satisfied with throwing them together into one.

CONSPECTUS SPECIERUM.

SECT. I. KEIMODRACON. *Caules procumbentes, ramosissimi. Folia inciso-crenata vel subpalmato-pinnatifida. Flores capitato-vel oblongo-spicati. Antheræ glabræ.*

Calycis dens supremus ovatus.

Folia subtus alba 3. D. DISCOLOR.

Folia utrinque subviridia.

Corolla calyce subtriplo longior, labio superiore elongato 1. D. PALMATUM.

Corolla calyce dimidio vel vix duplo longior, labio superiore abbreviato.

Bracteæ calyces excedentes, corollas subæquantes 2. D. BOTRYOIDES.

Bracteæ calyce breviores 4. D. PINNATUM.

Calycis dentes omnes lanceolati 5. D. ORIGANOIDES.

SECT. II. CALODRACON. *Caules basi crassi. Rami erecti, paucifoliati. Folia subradicalia, longe petiolata, crenata. Verticillastri capitato-vel oblongo-spicati. Antheræ glabræ.*

Bracteæ inciso-dentatæ.

Calycis dentes superiores oblongi.

Folia radicalia reniformia 6. D. IMBERBE.

Folia radicalia oblonga 7. D. GRANDIFLORUM.

Calycis dens supremus ovatus 8. D. SPECIOSUM.

Bracteæ ellipticæ integerrimæ 9. D. FRAGILE.

Species dubia 10. D. LAMIIFOLIUM.

SECT. III. CRYPTODRACON. *Caules erecti, ramosi, foliosi. Verticillastri capitato-spicati. Antheræ glabræ.*

Species unica 11. D. PARVIFLORUM.

SECT. IV. MOLDAVICA. *Caules erecti vel adscendentes, foliosi. Verticillastri distantes, subracemosi. Antheræ glabræ.*

Calyx bilabiatus, labio superiore semitrifido, inferiore bipartito.

Verticillastri æquales. Folia inciso-crenata.

Caulis erectus, $\frac{1}{2}$ -1-pedalis 12. D. MOLDAVICA.

Caulis divaricato-ramosissimus, 3-4-pollicarum 13. D. FÆTIDUM.

Verticillastri secundi. Folia integerrima vel argute dentata 18. D. PEREGRINUM.

Calycis dentes omnes subæquilongi, supremo latiore.

Folia inferiora dentata vel crenata.

Bracteæ aristato-dentatæ.

Corolla vix calycem excedens.

Calyx fructifer vix 3 lin. longus 15. D. ROYLEANUM.

Calyx fructifer 6 lin. longus.

Bracteæ orbiculatæ, multidentatæ 14. D. PELTATUM.

Bracteæ oblongæ, paucidentatæ 16. D. IBERICUM.

Corolla calyce duplo longior 17. D. CANESCENS.

Bracteæ subintegerrimæ.

Corolla vix calycem excedens 19. D. THYMIFLORUM.

Corolla calyce duplo longior 20. D. NUTANS.

Folia (exceptis floralibus) omnia integerrima.

Calycis dens supremus lato-ovatus . . . 22. D. INTEGRIFOLIUM.

Calycis dentes omnes lanceolati . . . 21. D. FRUTICULOSUM.

SECT. V. RUYSCHIANA. *Caules erecti, foliosi. Verticillastri subinterrupte spicati. Antheræ villosæ.*

Folia omnia integra.

Calyx glaber. Corolla ultra sesquipollicaris . . . 23. D. ARGUNENSE.

Calyx tenuiter pubescens. Corolla vix 15 lin.

longa 24. D. RUYSCHIANA.

Folia inferiora 3-5-fida 25. D. AUSTRIACUM.

Species dubiæ, 26. D. ODORATISSIMUM; 27. D. COCHINCHINENSE.

SECTIO I. KEIMODRACON.

Caules procumbentes, ramosissimi. Folia suborbiculata, inciso-crenata vel subpalmato-pinnatifida. Flores capitato- vel oblongo-spicati. Antheræ glabræ.

1. D. PALMATUM (Steph. in Willd. Sp. Pl. 3. 151), caule procumbente villoso, foliis petiolatis ovato-rotundatis palmato-pinnatifidis utrinque viridibus villosis, verticillastris capitato-spicatis, bracteis parvis cuneatis setaceo-dentatis, calycis dente supremo lato truncato, corollis calyce subtriplo longioribus, labio superiore elongato incurvo.

Hab. in Sibiria orientali prope Ishiginsk *Kruhse!* (*h. s. sp. comm. a cl. Prescott et Bunge.*)

Caulis basi suffruticosus. Rami floriferi adscendentes, 2-3-pollicares, uti folia molliter villosi. Folia 3-4 lineas longa et lata, petiolo semipollicari, supra rugosa, subtus nervosa, lobis ad medium folii attingentibus, oblongis, obtusis, integerrimis, sinubus acutis; floralia sessiliora, angustiora, obtuse dentata, at viridia et rugosa, nec membranacea. Verticillastri pauci, 2-6-flori approximati. Bracteæ calyce multo breviores subpalmato-dentatæ, membranacæ, villosæ. Calyces sessiles, pubescentes, apice sæpe coloratæ, dente supremo inferioribus 3-4-plove latiore. Corolla speciosa purpurascens, fere glabra, tubo breviter exserto basi attenuato, fauce amplissima, galea 6 lin. longa, labii inferioris lobis lateralibus oblongis reflexis, medio lato emarginato bifido, laciniis reflexis.

2. D. BOTRYOIDES (Stev. in Mem. Soc. Nat. Cur. Mosq. 3. 266), caule procumbente villoso, foliis petiolatis ovato-rotundatis palmato-pinnatifidis utrinque subviridibus villosis, verticillastris capitato- vel oblongo-spicatis, bracteis cuneatis incisis villosis, calycis dente supremo ovato acuto, corollis calyce dimidio longioribus, labio superiore brevi recto.

Nepeta pinnatifida. Fisch. Cat. Hort. Gorenk. 1812. 22. ex Bieb.

Hab. in Caucaso orientali: sub alpe Tysendagh in ripa glareosa torrentis Chodjal *Bieberstein*, in alpibus Tufandagh inter fragmenta schisti *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

A *D. palmato* differt foliis parum majoribus, verticillastris 6-10-floris, densius spicatis, bracteis calycem subæquantibus, calycis dente supremo minus dilatato, et præsertim corollis extus villosis, galea labio inferiore dimidio brevior.

3. D. DISCOLOR (Bunge! MSS.), caule procumbente ramoso, foliis petiolatis ovatis profunde pinnatifidis, laciniis margine revolutis supra

viridibus glabriusculis subtus albis, verticillastris oblongo-spicatis, bracteis exterioribus cuneatis setaceo-dentatis, calycis dente supremo lato truncato aristato, corollis calyce duplo longioribus.

D. origanoides. *Ledeb. ! Fl. Alt. 2. 383. non Steph.*

Hab. in Sibiriae jugo Altaico: in subsalsis asperis montium calcareorum et schistosorum ad fl. Tschyarysch versus ostium fl. Kerlyk et Kan *Ledebour ! Bunge ! (h. s. sp. comm. a cl. Bunge, &c.)*

Caules basi perennes, prostrati, radicanter. Rami floriferi adscendentes, 2-4-pollicares, tenuiter pubescentes vel canescentes. Folia 3-4 lin. longa, regulariter, ut in *Scutellariae orientalis* var. β , profunde pinnatifida vel subpalmata, supra rugosiuscula, subtus tomento tenuissimo alba, laciniis linearibus oppositis 3-4-jugis integerrimis vel inferioribus bifidis, sinubus obtusis; floralia infima conformia, superiora bracteæformia. Spica 1-1½-pollicaris, densa vel basi laxa, subinterrupta. Bracteæ exteriores sessiles, semipollicares, calyces excedentes, membranaceæ, subcoloratæ, ciliatæ, apice pinnatim 3-5-dentatæ, interiores subintegræ, lanceolatæ, omnes aristatæ. Verticillastri subsexflori. Calyces sessiles, pubescentes, dente supremo inferioribus subæqualibus fere triplo latiore. Corolla cœrulea, glabriuscula, calyce duplo longior, subincurva, tubo exserto basi attenuato, labio superiore brevi recto, inferiore duplo longiore patente.

4. *D. PINNATUM* (Linn. Spec. 829. ex descr.*), caule procumbente ramoso, foliis petiolatis ovato-rotundatis subpalmato-pinnatifidis utrinque viridibus subvillosis, verticillastris capitato-spicatis, bracteis exterioribus cuneatis inciso-dentatis, calycis dente supremo ovato aristato, corollis calyce dimidio longiore bracteas subæquante.

D. pinnatifidum. *Lam. Dict. 2. 319.*

D. pinnatum. *Ledeb. Ic. Pl. Fl. Ross. Alt. t. 445.*

Hab. in Sibiria: in lapidosis asperis alpinis Altaicis ad fl. Tschuja, rarius in monte Tarbagutai deserti Soongoro-Kirghisico, et in ins. Olchon ad lacum Baical *Bunge ! (h. s. sp. comm. a cl. Bunge.)*

Caulis ut in præcedentibus basi perennis, prostratus, ramosissimus. Rami floriferi breves, adscendentes, pubescentes. Folia longe petiolata, 3-4 lin. longa et lata, basi subcordata, laciniis obtusis ad medium limbi vix attingentibus supra rugosa, subtus paucinervia, margine subrevoluta; floralia infima sessilia, oblonga, obtusiuscula, suprema bracteis conformia. Spica densa, sesquipollicaris, ovata. Bracteæ 6-8 lin. longæ, exteriores flores superantes, membranaceæ, ciliatæ, apice acutissime 3-5-fidæ. Calyces profunde 5-dentatæ, dentibus inferioribus lanceolatis acutis, superiore latiore subovato aristato, omnibus membranaceis, coloratis. Corolla parva, cœrulescens, labio superiore brevi erecto extus pubescente, inferiore subduplo longiore patente, lobo medio maximo crenulato.

5. *D. ORIGANOIDES* (Steph. in Willd. Spec. 3. 151), caule procumbente, ramis villosis, foliis petiolatis ovato-rotundatis inciso-crenatis utrinque viridibus pubescentibus, verticillastris capitato-spicatis, bracteis maximis late cuneatis inciso-dentatis, calycis dentibus omnibus lanceolatis membranaceis supremo vix latiore, corollis calyces vix excedentibus.

Hab. in Sibiria *Stephan*, in summis alpibus Altaicis ad fl. Tschuja *Bunge ! (h. s. sp. comm. a cl. Bunge.)*

Folia latiora et minus incisa quam in *D. pinnato*, floralia maxima, infima basi

* Specimen sub hoc nomine in herbario Linneano servatum, est *D. botryoides*, sed character et descriptio evidenter hic referenda sunt.

membranacea, apice foliacea, cuneata, suprema bracteis conformia. Spica globosa, fere sesquipollicem diametro. Bracteæ numerosæ, 8-9 lin. longæ, membranaceæ, purpureæ, villosæ, dentibus lanceolatis ovatisve aristatis, interiores angustiores. Calyces membranacei, bracteis breviores. Corollæ cœruleæ bracteas subæquantes, cæterum floribus *D. pinnati* conformes.

SECTIO II. CALODRACON.

Caules basi crassi. Rami floriferi, erecti, paucifoliati. Folia subradicalia, longe petiolata, crenata. Verticillastri capitato-vel oblongo-spicati. Antheræ glabræ.

6. *D. IMBERBE* (Bunge! Enum. Pl. Alt. Crit. MSS.), subglabrum, caule erecto humili, foliis radicalibus longe caulinis paucis breviter petiolatis, omnibus reniformibus profunde crenatis utrinque viridibus, verticillastris capitato-spicatis, bracteis cuneatis incisis glabris, calycis dentibus superioribus oblongis, corollis calyce duplo longioribus.

Hab. in Sibiriae summis alpibus Altaicis ad fl. Tschuja *Bunge!* (*h. s. sp. comm. a cl. Bunge.*)

Caules basi cæspitosi perennes, foliorum emarcidorum rudimentis obtecti. Rami floriferi erecti, semipedales, glabri vel tenuiter pubescentes. Folia radicalia, petiolo 3-pollicari, limbo vix pollicari, utrinque glabriusculo; caulinorum paris unici multo minora; floralia sessilia, subcolorata. Bracteæ semipollicares, coloratæ, margine interdum subpubescentes, calyces subæquantes. Calyces colorati, glabriusculi, subincurvi, dentibus superioribus parum latioribus longioribusque. Corolla cœrulea, pollicaris, tubo apice dilatato, basi parum attenuato. Labia subæqualia.

7. *D. GRANDIFLORUM* (Linn.! Spec. 830), caule erecto superne piloso, foliis radicalibus longe petiolatis oblongis obtusis crenatis basi cordatis, caulinis paucis breviter petiolatis ovatis omnibus utrinque viridibus subglabris, floralibus orbiculatis pilosis supremis bracteæformibus, verticillastris oblongo-spicatis, bracteis maximis orbiculato-cuneatis inciso-dentatis, calycis dentibus superioribus oblongis, corollis amplis calyce triplo longioribus.

D. altaense. *Laxm. in Nov. Comm. Petrop.* 15. 556. t. 29. f. 5. *Reichb. Ic. Pl. Cult.* 1. t. 96.

D. grandiflorum. *Bot. Mag.* 25. t. 1009.

Hab. in Sibiria frequens, in jugo Altaico ubique in alpinis et subalpinis *Ledebour!* *Bunge!* (*h. s. sp.*)

Caules e basi crassa perenni foliorum emarcidorum rudimentis nigris obtecta complures, erecti, nunc 3-4-pollicares nunc pedales, superne sub axillis et ad angulos pilosi, basi glabrati. Folia radicalia (*Stachydis Betonica*), 1-2-pollicaria; caulina pauca petiolis brevibus dilatatis ciliatis subconnatis; superiora sessilia, rotundata; floralia bracteis subconformia. Spica 2-3-pollicaris, verticillastro infimo sæpius distincto. Bracteæ fere pollicares, interiores angustiores, omnes plus minusve coloratæ. Calyx 8 lin. longus, pilosus, subincurvus, apice obliquus, dentibus parum inæqualibus superioribus minus profunde fassis. Corolla speciosa, cœrulea, fere bipollicaris, glabriuscula, fauce amplissima, labio inferiore supra punctato, piloso, lobo medio bifido, laciniis integerrimis. Filamenta superiora vix pilosiuscula.

Hæc species et *D. imberbe* a *Nepeta* non nisi bracteis differunt.

8. *D. SPECIOSUM* (Benth. in Wall. Pl. As. Rar. 2. 65), caule erecto pubescente, foliis radicalibus longe petiolatis late cordiformibus,

caulinis paucis breviter petiolatis omnibus rugosis utrinque viridibus subtus pubescentibus, floralibus orbiculatis subbracteæformibus, verticillastris oblongo-spicatis, bracteis orbiculatis inciso-crenatis calyce multo brevioribus, calycis dente supremo ovato, corollis calyce subduplo longioribus.

Hab. in Indiæ Orientalis jugo Himalayano: in Gossain Than Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Radix fasciculata, fibris incrassatis. Caules simplices, 1-1½-pedales, sub floribus molliter villosi. Petioli foliorum radicalium 3-5-pollicares, limbo vix pollicem longo, fere 2-poll. lato, supra glabriusculo, subtus ad venas pubescente. Foliorum caulinorum paria 2-3 inferiora radicalibus conformia at minora, brevius petiolata, superiora subsessilia, ovata; floralia omnia orbiculata, infima calyces superantia, superiora breviora. Verticillastri 2-4, densi, subsecundi, infimo sæpe distincto. Bracteæ 3 lin. longæ. Calyces simplices, 6-lineares, ampli, incurvi, dente supremo ovato, lateralibus oblongis, inferioribus lanceolatis. Corolla extus villosissima, purpurea?

9. *D. FRAGILE* (Turczan.! MSS.), caulibus decumbentibus articulatis pilosiusculis, foliis petiolatis oblongis obtusis obscure crenatis basi rotundatis utrinque viridibus pilosis glabratisve, floralibus bracteisque sessilibus ellipticis integerrimis mucronatis membranaceis pilosis, verticillastris oblongo-spicatis calyces æquantibus, calycis dente supremo maximo ovato, corollis calyce subduplo longioribus.

Hab. in Dauria ad lacum Nossogol Turczaninow! (*h. s. sp. comm. a cl. Bunge.*)

Caulis basi perennis, crassus, procumbens, fuscus. Rami pedales? ad nodos articulati, fragiles, tetragoni, sæpius, præsertim in parte superiore, pilis reflexis induti. Folia 1-1½-pollicaria, sæpius leviter et late crenata et fere glabra, interdum (ramorum sterilium?) angustiora, integerrima, pilosa. Spica 2-3-pollicaris, verticillastro infimo subdistincto. Bracteæ maximæ, pallide virentes, tenuissime reticulato-venosæ, margine et ad venas pilis longis ciliatæ. Calyces 6-8 lin. longi, basi purpurascens, striati, hispiduli, apice pallidi, membranacei, dente supremo cæteris subtriplo latiore. Corolla flavescens? incurva, extus pubescens, tubo breviter exserto, basi attenuato, fauce dilatata, labiis subæqualibus.

Species calyce et habitu *Dracocephali*, etsi bracteis integerrimis ab hoc genere recedit.

10. *D. LAMIIFOLIUM* (Desf. Pl. Cor. Tourn. in Ann. Mus. Par. 10. 305. t. 26).

Hab. in Cretæ fissuris rupium Tournefort.

“*D. foliis ovatis obtusis crenatis, floribus terminalibus, corollæ labio superiore bifido, laciniis dentatis.*”

“Caules simplices, tetragoni, 6-12-pollicares, cæspitosi. Folia petiolata, uti caulis pilis brevissimis conspersa. Flores ad apices caulium capitati. Calyx dilatatus, laciniis 5 profundis acutis rectis subæqualibus. Corolla magna, rosea, 1½-pollicaris; tubus rectus, villosus, a basi ad apicem dilatatus, fauce inflata; labium superius elongatum, concavum, laciniis 2 obtusis, oblique truncatis, irregulariter dentatis; labium inferius trifidum, lobis lateralibus brevissimis, inferiore profunde emarginato subbifido crenato purpureo-maculato.”—Desf. l. c.

An *Nepetæ* species? de bracteis silet cl. auctor.

SECTIO III. CRYPTODRACON.

Caules erecti, ramosi, foliosi. Verticillastri capitato-spicati. Antheræ glabræ.

11. *D. PARVIFLORUM* (Nutt. Gen. Pl. N. Am. 2. 35), caule erecto
June 1834. 3 T

ramoso pubescente, foliis petiolatis lanceolatis inciso-crenatis serratisve utrinque viridibus subtus pubescentibus, verticillastris capitato-spicatis, bracteis ovato-cuneatis aristato-dentatis, calycis dente supremo lato-ovato, corollis calycem vix excedentibus.

Hab. in America septentrionali ad flumen Missouri prope arcem Mandan *Nuttall*, ad Red River *Douglas*! et ad arcem Cumberland House ad flum. Saskatchewan *Drummond*! (*h. s. sp. e Mus. Soc. Hort. Lond. et comm. a cl. Hooker.*)

Caules herbacei pedales vel vix semipedales. Folia *D. moldavica* at eglandulosa, subtus pubescentia. Spicae globosae vel oblongae, densae, ad apices caulis et ramorum. Folia floralia exteriora caulinis subconformia, sessilia, acuta, serraturis breviter aristatis, interiora bracteis subconformia. Bractea uti calyces virides, venosae, glabrae vel ciliatae, aristis brevibus rigidis subpungentibus. Calyces sessiles, dente supremo ovato, lateralibus oblongis, infimis lanceolatis, omnibus aristato-mucronatis. Corolla parva, caerulea, extus pubescens, tubo tenui, fauce parum dilatata, labiis brevibus, superiore erecto emarginato, inferiore patente, lobo medio maximo emarginato.

SECTIO IV. MOLDAVICA.

Caules erecti vel adscendentes, foliosi. Verticillastri distantes subracemosi. Antherae glabrae.

12. *D. MOLDAVICA* (Linn.! Spec. 830), caule erecto ramoso, foliis petiolatis lanceolatis inciso-crenatis, floralibus angustioribus basi aristato-serratis, verticillastris distinctis longe racemosis, bracteis lanceolatis aristato-serratis, calyce bilabiato, labio superiore late semitrifido, inferiore bipartito, corollis calyce plus duplo longioribus.

Moldavica punctata. Mæneh. Meth. 410.

Hab. in Sibiria orientali *Pallas*! *Bunge*! &c. etiam in India orientali, America meridionali, &c. e hortis dispersum. (*h. s. sp. comm. a cl. Bunge.*)

Herba 1-1½-pedalis, glabra vel tenuissime pubescens. Folia pollicaria, inferiora lato-lanceolata, obtusa, grosse crenata, basi subincisa, crenaturis et lobis omnibus muticis, superiora et floralia angustiora, apice obtusa et obtuse subcrenata, basi angustata, serrata, serraturis longe aristatis, omnia utrinque viridia, glabra, et subtus glandulosa. Verticillastri 6-10-flori, racemum semipedalem vel pedalem formantes. Bractea foliis floralibus dimidio breviores et iis subconformes, sed acutae, apice serraturisque omnibus aristatis. Calyces bractearum æquantes, pedicello brevi rigido complanato, erecti, 4-5 lin. longi, basi 15-striati, labiis submembranaceis, rigidis, coloratis, reticulato-venosis, post anthesin clausis, superiore lato, dentibus ovatis lobis labii inferioris latioribus. Corolla caerulea vel alba, fauce amplissima.

13. *D. FÆTIDUM* (*Bunge*! in *Ledeb. Fl. Alt. 2. 386*), caule humili divaricato ramosissimo, foliis petiolatis ovato-oblongis obtusis crenatis, floralibus angustioribus basi aristato-serratis, verticillastris distinctis breviter racemosis, bracteis oblongis aristato-serratis, calyce bilabiato, labio superiore late semitrifido, inferiore bipartito, corollis calyce plus duplo longioribus.

Hab. in Sibiriae collibus arenosis ad latus dextrum deserti editi juxta fl. Tschuja extensi *Bunge*! (*h. s. sp. comm. a cl. Bunge.*)

Valde affine *D. Moldavica* et forsan, ut monet ipse cl. *Bunge*, ejus varietas.

Differt statura vix 2-3-pollicari, foliis brevibus longe petiolatis. Rami et calyces pubescentes.

14. *D. PELTATUM* (Linn.! Spec. 831), caule erecto, foliis petiolatis ovatis obtusis crenatis, floralibus oblongo-lanceolatis integrioribus, verticillastris distinctis multifloris longe racemosis, bracteis orbiculatis aristato-dentatis, calycis dente supremo ovato lateralibus oblongis infimo lanceolato, corollis calycem vix excedentibus.

D. ocymifolium. Mill. Dict. n. 4.

Zornia peltata. Mæench. Meth. 411.

Hab. in Oriente *Linnæus et Auct.* (h. s. c.)

Caules subsimplices, ultra pedales, glabri vel tenuissime tomentosi. Folia sesquipollicaria, basi cuneata, tenuia, utrinque viridia, glabra, floralia gradatim angustiora, omnia flores superantia. Verticillastri plerumque 10-12-flori. Bracteæ petiolatæ, latissimæ, calyce breviores, nervis elevatis reticulatæ, virides, glabræ. Pedunculi breves, rigidi, erecti, complanati. Calyx semipollicaris, striatus, subglaber, dentibus 3 superioribus reticulatis obtusiusculis, mucronulatis, infimis acutis, supremo lateralibus duplo infimis plus triplo latiore. Corolla parva, cœrulea, subglabra.

15. *D. ROYLEANUM* (Wall. Benth. in Wall. Pl. As. Rar. 1. 65), caule erecto, stricto, foliis petiolatis ovatis crenatis, floralibus angustioribus superioribus basi aristato-serratis, verticillastris distinctis interrupte spicatis, bracteis oblongis aristato-dentatis, calyce vix bilabiato, dentibus superioribus latioribus, corollis calycem vix excedentibus.

Hab. in Indiæ Orientalis provincia Kunawur *Royle!* (h. s. sp. comm. a cl. *Royle.*)

Caulis in exemplaribus sylvestribus semipedalis, in cultis ultrapedalis, basi glabratus, apice pubescens. Folia distantia, utrinque viridia, glabriuscula basi, inferiora cuneata, superiora angustata. Floralium calycibus sublongiora. Verticillastri 6-flori, in racemo vel spica interrupta, longa, striata, terminali dispositi, inferiores distantes, superiores approximati, at omnes distincti. Pedunculi breves, erecti, rigidi, complanati. Bracteæ petiolatæ, calyces æquant, virides, aristis longis divaricatis. Calyces 3 lin. longi, striati, tenuissime pubescentes, dentibus convolutis clausi. Corolla tenuissima, flavescent?

16. *D. IBERICUM* (Bieb. Fl. Taur.-Cauc. 2. 64), caule decumbente? foliis petiolatis ovato-oblongis basi longe angustatis subdentatis, floralibus lanceolatis subintegerrimis, omnibus glabris, verticillastris distinctis longe racemosis subsexfloris, bracteis lineari-cuneatis apice aristato-dentatis, calycis glabriusculi dente supremo ovato, inferioribus lanceolatis, corollis calycem vix excedentibus.

Hab. in Iberia *Steven* (*Bieberstein*), in locis lapidosis montium Talüs prope pagum Swant *C. A. Meyer!* (h. s. sp. comm. a cl. *Meyer.*)

Affine *D. Royleano* et *D. canescenti*. A priori differt caulibus crassioribus, foliis angustioribus integrioribus glabris crassiusculis pauciveniis, et calycibus duplo majoribus (semipollicaribus); a *D. canescenti* glabritie et corollis minutis. Calyx post anthesin subclausus, dente supremo lateralibus duplo infimis triplo latiore. Corolla cœrulea, tenuis.

17. *D. CANESCENS* (Linn.! Spec. 831), caule suberecto ramoso tenuissime cano-tomentoso, foliis petiolatis infimis ovatis oblongisve subinciso-crenatis, floralibus lanceolatis subintegerrimis, omnibus tomento tenui subcanescentibus, verticillastris distinctis longe racemosis

subsexfloris, bracteis ovato-cuneatis aristato-dentatis, calycis incanidente supremo ovato infimis lanceolatis, corollis calyce duplo longioribus.

Zornia canescens. *Mærch. Meth.* 411.

D. canescens. *Sw. Brit. Fl. Gard.* 1. t. 38.

Hab. in Oriente *Linnæus et Auct.*, in Syria prope Aleppo *Russell!* (*h. s. c. et v. s. sp. in herb. Banks.*)

Caulis pedalis, obtuse tetragonus. Folia infima in petiolum longe angustata, superiora uti floralia sessilia, basi breviter angustata, omnia obtusa, inferiora venoso-rugosa, superiora crassiuscula, paucivenia, omnia calyces excedentia. Bracteæ calyce dimidio breviores, petiolatæ, basi angustatæ, tenuiter pubescentes, nervis elevatis in aristas rigidas excurrentibus. Pedunculi breves, erecti, rigidi, complanati. Calyces 8 lin. longi, striati, dente supremo infimis duplo latiore. Corolla cœrulea, tubo breviter exserto, fauce dilatata; labium superius fornicatum, breviter emarginatum, vix inferiore brevius.

18. *D. PEREGRINUM* (Linn.! Spec. 829), decumbens, ramis adscendentibus glabriusculis, foliis glaberrimis breviter petiolatis lanceolatis plerumque paucidentatis dentibus aristatis, floralibus vel interdum fere omnibus integerrimis, verticillastris distinctis paucifloris secundis breviter racemosis, bracteis oblongis lanceolatisve aristatis subdentatis, calyce bilabiato, labio superiore late tridentato inferiore anguste bifido, corollis amplis calyce subtriplo longioribus.

Ruyschiana verticillata. *Mill. Dict. n.* 3?

D. peregrinum. *Bot. Mag.* 27. t. 1084.

Hab. in Sibiria fere omni *Pallas!* *Gmelin, &c.*, in apricis montium Altaicorum frequens *Ledebour!* *Bunge!* &c. (*h. s. sp.*)

Caules basi laxè ramosi, procumbentes; rami tenues, tetragoni, rigidi, semipedales vel vix pedales. Folia plerumque pollicaria, nunc omnia etiam floralia dentata, rarius omnia etiam infima integerrima; floralia plerumque calyces æquantia vel suprema dimidio breviora, omnia obtusiuscula, plus minusve mucronata, paucivenia. Bracteæ calyce multo breviores, nunc minutæ, ovatæ, oblongæ vel lineares, integerrimæ vel pauci-dentatæ. Verticillastri pauci, nunc distantes nunc approximati. Pedunculus communis pedicellos subæquans, et cum iis rigidus, subcomplanatus. Calyx 7-8 lin. longus, ut in *D. Moldavica* bilabiatus. Corolla 15-18 lin. longa, purpurascens vel cœrulea, tubo vix exserto, fauce longa, amplissima, labio superiore lato emarginato.

19. *D. THYMIFLORUM* (Linn.! Spec. 831), caule erecto? foliis breviter petiolatis ovato-lanceolatis lanceolatisve crenatis, floralibus angustioribus integrioribus, verticillastris distinctis multifloris longe racemosis, bracteis ovato-oblongis subintegerrimis, calycis dente supremo lato-ovato inferioribus lanceolatis, corollis vix calycem excedentibus.

Zornia parviflora. *Mærch. Meth.* 411.

Hab. in Europa orientali: Upsaliæ *Wahlenberg*, Mosquæ *Klustine!* in Podolia australi *Besser!* (*h. s. sp.*)

Caulis 1-1½-pedalis, parum ramosus, tenuiter pubescens. Folia caulina parva, vix 6-9 lin. longa, floralia inferiora fere duplo longiora, flores longe superantia, gradatim breviora, omnia viridia vix pubescentia. Verticillastri plerumque 10-12-flori. Bracteæ foliaceæ, calyces æquantés vel breviores, rarissime dentatæ. Pedunculi breves, erecti, subteretes. Calyx declinatus, fere 3 lin. longus, striatus, subcoloratus, dente supremo lateralibus plus duplo latiore, infimis angustissimis. Corolla tenuissima, purpurascens.

20. *D. NUTANS* (Linn. ! Spec. 831), caule erecto ? foliis petiolatis ovatis crenatis, floralibus oblongo-lanceolatis integrioribus, verticillastris distinctis multifloris longe racemosis, bracteis ovatis oblongisve subintegerrimis, calycis dente supremo lato-ovato inferioribus lanceolatis, corollis calyce plus duplo longioribus.

Zornia nutans. Mœnch. Meth. 411.

D. nutans. Bot. Reg. 10. t. 841.

Hab. in Sibiria fere omni : in apricis montium Altaicorum frequens *Ledebour ! Bunge ! &c.* (*h. s. sp.*)

Habitus, folia, et calyces *D. thymifloræ*, differt corollis fere 8 lin. longis, tubo breviter exserto tenui, fauce amplissima.

21. *D. FRUTICULOSUM* (Steph. in Willd. Spec. 3. 152), suffruticosum, glabrum, foliis subsessilibus ellipticis mucronatis integerrimis vel superioribus floralibusque aristato-dentatis, verticillastris paucifloris superioribus subspicatis, bracteis ovatis aristato-dentatis, calycis dentibus omnibus lanceolatis supremo latiore, corollis calyce vix duplo longioribus.

Hab. in Sibiria *Stephan*, circa *Kiachta Siever !* (*v. s. sp. in herb. Lambert.*)

Rami in specimine suppetente vix 4-pollicares, subtetragoni, ramosi, glabri. Folia 4 lin. longa vel vix semipollicaria, basi rotundata, inferiora breviter petiolata et plerumque integerrima, superiora sessilia, basi dentibus 1-2 instructa, omnia apice mucronata. Flores in apice caulis breviter subspicati. Bracteæ forma foliorum, sed basin versus dentibus utrinque 3-4 apice aristatis instructæ. Calyx coloratus, aristatus. Corolla *D. integrifolii* a quo calycibus, foliis, &c. diversum.

22. *D. INTEGRIFOLIUM* (Bunge ! in Ledeb. Fl. Alt. 2. 387), suffruticosum, glabrum, ramis suberectis, foliis subsessilibus lanceolatis obtusis integerrimis, floralibus bracteæformibus, verticillastris racemosis secundis, bracteis ovatis aristato-dentatis, calycis dente supremo lato-ovato inferioribus lanceolatis, corollis calyce subduplo longioribus.

Hab. in jugo Altaico in præruptis montium *Kurtschum* prope *Baty* et in rupestribus prope ruinas *Ablakit Meyer*, in *Dahuria Prescot !* (*h. s. sp. comm. a cl. Prescot et Bunge.*)

Habitus *D. nutantis* sed foliis distinctissimum. Caules basi lignosi, ramosi, subpedales. Folia pollicaria, utrinque viridia, ad axillas subfasciculata, floralia infima subconformia, basi dentibus paucis aristatis instructa, superiora omnino bracteis conformia. Racemi 3-4-pollicares. Verticillastri omnes distincti, infimi distantes, plerumque sub 10-flori, laxi. Pedunculi uti pedicelli lineam longi, subteretes. Bracteæ exteriores calycem subæquantes, interiores breviores, dentibus longe aristatis. Calyx purpurascens, 4-5 lin. longus, striatus, incurvus, dente supremo inferioribus triplo latiore. Corolla *D. nutantis*.

SECTIO V. RUYSCHIANA.

Caules erecti, foliosi. Verticillastri subinterrupte spicati. Antheræ villosæ.

23. *D. ARGUNENSE* (Fisch. ! Link. Enum. Hort. Berol. 2. 118), glabrum, caule erecto, foliis lineari-lanceolatis integerrimis glabris, verti-

cillastris subspicatis, bracteis cuneato-ellipticis acutis, calyce glaberrimo bilabiato, labio superiore late semitrifido, inferiore anguste bipartito, corollis amplis calyce subtriplo longioribus.

D. argunense. *Reichb. Ic. Pl. Cult.* 1. t. 1. *Sw. Br. Fl. Gard.* 1. t. 47.

Hab. in Dahuria *Bunge* ! (*h. s. sp. comm. a cl. Bunge.*)

Affine *D. Ruyschianæ* ; differt præcipue calycibus glabris et floribus majoribus. Rami sesquipedales, subsimplices. Folia subsessilia, 2-3-poll. longa, margine vix revoluta, junioribus in axillis fasciculatis. Verticillastri pauci, 2-6-flori. Bracteæ calyce breviores, basi longe angustatæ, margine brevissime ciliatæ. Calyx 8 lin. longus, subcampanulatus, dentibus profundis acutis. Corolla tenuiter pubescens, cœrulea, speciosa, ultra sesquipollicaris, fauce amplissima.

24. *D. RUYSCHIANA* (Linn. ! Spec. 830), caulibus erectis tenuiter pubescentibus, foliis lineari-lanceolatis integerrimis glabris, verticillastris subspicatis, bracteis ovato-lanceolatis integerrimis, calycis pubescentis dente supremo ovato infimis lanceolatis, corollis calyce plus duplo longioribus.

D. hyssopifolium. *F. Mart. ex Steud. Nom. Bot.* 285.

Ruyschiana spicata. *Mill. ! Dict. n.* 1.

Zornia linearifolia. *Mœnch. ex Steud. Nom. Bot.* 285.

Hab. in Europæ et Asiæ Rossicæ montosis : in Norwegiæ collinis apricis Guldbrandslandiæ *Unio Itin. Wurtemb. !* Galloprovincia, Delphinatu et Helvetia ! in Franconia, Borussia, et Galicia *Reichenbach*, in Rossia circa Rezan *Klustine !* in Caucaso *Bieberstein*, et monte Beschtai *C. A. Meyer !* in jugo Altaico frequens *Ledebour, Bunge, &c.* (*h. s. sp.*)

Rami e basi ramoso plures, pedales, subsimplices. Folia 1-1½-pollicaria, subsessilia, margine plerumque revoluta, juniora in axillis fasciculata. Verticillastri pauci, approximati, subsexflori. Bracteæ paucae, superiores minutæ. Calyx 4 lin. longus, pedicello brevi tereti, basi striatus, canescens. Corolla purpurascens, pollicaris, fauce ampla, labio superiore lato inferiorem excedente.

25. *D. AUSTRIACUM* (Linn. ! Spec. 829), caulibus erectis pilosiusculis, foliis 3-5-fidis vel ramealibus subintegerrimis, laciniis linearibus margine revolutis, verticillastris subinterrupte spicatis, bracteis 3-7-fidis aristatis, calycis dente supremo ovato, inferioribus lanceolatis, corollis calyce subtriplo longioribus.

D. austriacum. *Jacq. Ic. Rar.* 1. t. 112.

Zornia partita. *Mœnch. ex Steud. Nom. Bot.* 285.

Ruyschiana laciniata. *Mill. ! Dict. n.* 2.

Hab. in Europæ et Asiæ Rossicæ montosis : in Pyrenæis ! alpinis Delphinatus ! et Helvetiæ ! in Germania australi, Galicia, et Transsylvania *Reichenbach*, Podolia *Besser !* Caucaso *Bieberstein, Prescott !* et in monte Beschtai *C. A. Meyer.* (*h. s. sp.*)

Habitus *D. Ruyschianæ*, sed foliis divisis et margine revolutis distinctissimum. Folia ramorum sterilius rarius integra. Verticillastri 6-10-flori, omnes sæpius distincti. Folia floralia et bracteæ hispida. Calyces crassi, 8-9 lin. longi, dente supremo lateralibus duplo infimis triplo latiore. Corolla speciosa, ultra sesquipollicaris.

*Species dubiæ.*26. *D. ODORATISSIMUM* (Poir. Dict. Suppl. 2. 521).Hab. in Crimea *Poiret*.

"*D. floribus spicatis, bracteis angusto-lanceolatis ciliatis flore longioribus, foliis ovato-oblongis integerrimis.*

"*Vix 4-5 poll. altum. Caules tenues. Rami divaricati, cinerei, subrubescens, angulis pubescentibus. Folia mediocriter petiolata, parva, ovato-oblonga, integerrima, utrinque angustata, glabra, 4-5 lin. longa, superiora angustiora, lanceolata, sublongiora. Flores sessiles, approximati in spica breve terminali, subimbriati. Bracteæ angustæ, lanceolatæ, acutissimæ, 7 lin. longæ, margine ciliatæ, floribus sublongiores. Calyx tenuis, tubulosus, striatus, striis subciliatis, dentibus 5, rectis, brevissimis. Corolla albida, subpurpurascens, extus pilosiuscula, tubo tenui calyce vix longiore, fauce amplissima.*"—*Poir. l. c.*

From the above description it appears to be allied to *D. thymiflorum* and *nutans*, but different from either. From the calyx, it can, however, scarcely be a true *Dracocephalum*.

27. *D. COCHINCHINENSE* (Lour. Fl. Cochinch. 371).Hab. in Cochinchina *Loureiro*.

"*D. floribus spicatis, bracteis subrotundis acutis, foliis ovato-lanceolatis integerrimis.*

"*Caulis herbaceus, 10-pollicaris, erectus, tetragonus, sulcatus, villosus. Folia ovato-lanceolata, integerrima, villosa, pauca, opposita. Flos violaceus, spicatus, terminalis; bracteis subrotundis acutis multifloris. Corolla fauce inflata, labio superiore concavo. Filamenta didynamica, pilosa. Stigma acutum bifidum, laciniis inæqualibus mutuo inflexis. Semina 4.*"—*Lour. l. c.*

Species e genere excludendæ.

D. CANARIENSE Linn. = *Cedronella canariensis*.

D. CHAMÆDROIDES Balb. = *Sphacele campanulata*.

D. CORDATUM Nutt. = *Cedronella cordata*.

D. DENTICULATUM Ait. = *Physostegia virginiana*.

D. ERECTUM Royle. = *Nepeta erecta*.

D. GOVANIUM Wall. = *Nepeta Govaniana*.

D. LANCIFOLIUM Mærch. = *Physostegia virginiana*.

D. MEXICANUM Humb. et Kunth. = *Cedronella mexicana*.

D. SIBIRICUM Linn. = *Nepeta macrantha*.

D. SPECIOSUM Sweet. = *Physostegia virginiana*.

D. VARIEGATUM Vent. = *Physostegia virginiana*.

D. VIRGINIANUM Linn. = *Physostegia virginiana*.

LXX. CEDRONELLA.

Dracocephali sp. Linn. et Auct.

Cedronella. Mærch. Meth. 411.

Calyx tubulosus vel campanulatus, sub-15-nervius, ore subæquali vel obliquo, 5-dentato. Corolla tubo exserto, intus nuda, fauce dilatata, limbo bilabiato, labio superiore recto subplano emarginato-bifido, inferiore trifido, lobo medio maximo. Stamina 4, adscendentia, didynamica, inferioribus brevioribus. Antheræ biloculares, loculis parallelis.

Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, lævia. — Herbæ. Verticillastri in spica vel racemo terminali approximati. Folia floralia bractæformia. Bractæ parvæ, setaceæ.

Two of the species are certainly, and the third also probably, American.

1. *C. CORDATA*, herbacea, stolonifera, foliis cordato-ovatis crenatis, verticillastris paucifloris secundis in spica vel racemo brevi approximatis.

Dracocephalum cordatum. *Nutt. Gen. Pl. N. Amer.* 2. 35.

Hab. in America septentrionali: ad flumen Ohio infra Pittsburgh *Nuttall*. (*h. s. sp. comm. a cl. Torrey*.)

Caules basi repentes, radicanter. Rami floriferi erecti, semipedales, simplices, villosi. Folia 1-1½-pollicaria, forma fere *Lamii*, obtusa, rugosa, pubescentia vel glabriuscula; floralia calyce breviora, petiolata, basi rotundata, inferiora crenulata, superiora integerrima. Cymæ breviter pedunculatæ, 1-3-floræ. Calyx semipollicaris, amplus, viridis, vix pubescens, striatus, ore obliquo, dentibus lato-lanceolatis, acutis, superioribus longioribus. Corolla pallide cœrulea, speciosa, fere sesquipollicaris, tubus basi tenuis, intus pubescens. Faux amplissima. Labium superius latum, concavum, apice bilobum, lobis rotundatis. Labii inferioris lobi laterales ovato-rotundati, medius latus, subplanus, supra pilosus, emarginatus. Stamina labio superiore breviora. Antheræ parvæ.

2. *C. MEXICANA*, elata, foliis ovato-lanceolatis basi cordatis dentatis, verticillastris multifloris in racemo vel spica interrupta tereti approximatis.

Dracocephalum Mexicanum. *Humb. et Kunth. ! Nov. Gen. et Sp. Amer.* 2. 322. t. 160.

Hab. in Mexico: inter segetes et in pratis regione alsa prope Valladolid Pazcuara et Chalco *Humboldt et Bonpland !* prope Tlalpuxabua *G. J. Graham !* (*h. s. sp. comm. a cl. Graham*.)

Herba 2-3-pedalis, glabra vel tenuiter pubescens. Folia breviter petiolata, 1½-2-pollicaria, longe acuminata, acuta, grosse dentata, subtus glandulosa. Verticillastri laxi, 20-40-flori. Cymarum inferiorum pedunculi communes sæpe semipollicares; cymæ superiores subsessiles. Pedicelli breves, erecti. Calyx tenuis, fere glaber, dentibus acutissimis. Corolla purpurascens, calyce triplo longior, tubo tenui incurvo, fauce vix dilatata, limbi lobis brevibus. Genitalia exserta.

3. *C. TRIPHYLLA* (Mœnch. Meth. 411), fruticosa, elata, foliis pin-natim trisectis segmentis oblongo-lanceolatis, verticillastris laxis in spica oblonga tereti aggregatis.

Dracocephalum canariense. *Linn. ! Spec.*

Cedronella canariensis, &c. *Comm. Hort. Amst.* 2. 81. t. 41.

Hab. in America et forsan in Canariis *Linnæus et Auct.*; exemplaria sylvestria nondum vidi. (*h. s. c.*)

Caulis 2-3-pedalis. Rami floriferi herbacei, tetragoni, glabriusculi, ad nodos pilosi. Foliorum petiolus ½-1-pollicaris; segmenta lateralia subsessilia, pollicaria, basi obliqua, terminale petiolulatum sesquipollicare, basi rotundatum, omnia apice angustata, margine crenata, utrinque viridia, glabriuscula vel sæpius, præsertim in pagina inferiore, pubescentia. Verticillastri 10-12-flori. Calyx ample tubulosus, 5 lin. longus, 13-15-striatus, pubescens, dentibus e basi lanceolato subulato-acuminatis, æqualibus. Corolla albida, calyce vix duplo longior, fauce parum dilatata.

TRIBUS IX. STACHYDEÆ.

CALYX irregulariter venosus vel 5-10-nervius, æqualis, obliquus vel rarius subbilabiatus, 3-10-dentatus. Corollæ tubus inclusus vel exsertus, intus sæpe annulatus, limbus bilabiatus, labio superiore galeato vel plano, integro vel emarginato, inferiore varie trifido. Stamina 4, adscendentia, didynama, superioribus brevioribus, omnibus fertilibus, vel inferiorum antheris rarissime cassis vel dimidiatis. Achenia sicca.

The distinctions between this tribe and the *Satureineæ*, *Prostanthereæ*, *Scutellarineæ*, and *Nepeteæ*, are nearly the same as those which distinguish *Melissineæ*, as mentioned above (p. 365), where also may be seen the characters which separate *Stachydeæ* from *Melissineæ*.

LXXI. MELITTIS.

Melittis. Linn. Gen.

Calyx campanulatus, membranaceus, irregulariter venosus, subbilabiatus, labio superiore lato rotundato, obscure bilobo vel breviter 2-3-dentato, inferiore bifido, lobis rotundatis. Corolla tubo amplo exserto, intus exannulato, limbo bilabiato, labio superiore orbiculato integro subconcavo patente, inferiore trilobo patente. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta exappendiculata. Antheræ per paria approximatae, biloculares, loculis distinctis divergentibus. Stylus apice breviter bifidus, lobis ovatis apice stigmatiferis. Achenia sicca, lævia, vel tenuissime reticulata.

A single European species.

1. M. MELISSOPHYLLUM (Linn. Spec. 832).

M. grandiflora. Sm. Fl. Brit. 2. 644. Eng. Bot. 9. t. 636. Hook. Fl. Lond. v. 2. ic. Reichb. Icon. Bot. Eur. 3. 41. t. 242.

M. melissophyllum. Jacq. Fl. Austr. 1. t. 26. Smith Engl. Bot. 8. t. 577. Reichb. Icon. Bot. Eur. 3. 41. t. 241.

M. albida. Guss. Prod. Fl. Sic. 2. 140.

Melissa sylvestris. Lam. Fl. Fr. 2. 401.

Hab. in Europæ umbrosis: in Anglia! Gallia! Germania! Lusitania Brotero, Hispania! Sicilia Gussone, Italia Tenore, Græcia Sibthorp! (v. v. et h. s. sp.)

Caules herbacei, erecti, subsimplices, 1-1½-pedales, tetragoni, plus minusve pilis patenti-reflexis hirsuti. Folia breviter petiolata, 1½-2-pollicaria, ovata, cre-

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3 u

nata, basi cordata vel suprema rotundata, rugosa, villosa, utrinque viridia; floralia conformia vel suprema angustiora, omnia flores excedentia. Verticillastri subsex-flores, axillares. Bracteæ subnullæ. Pedicelli calyce subbreiores. Calyx semi-pollicaris, viridis, glaber vel plus minusve villosus, labio vel lobo supremo in eodem exemplari sæpe integro et emarginato vel subtridentato. Corolla $1\frac{1}{4}$ -pollicaris, rubra vel roseo-alba, tubo a basi ampla, extus glabra; labium superius sæpius patens et integer, rarius emarginatum, inferius subduplo longius, lobis lateralibus ovato-subrotundis, medio maximo, lato-rotundato, integro. Stamina e tubo breviter exserta, limbo breviora. Filamenta dilatata, margine pilosa, basi cum corolla confluentia, nec appendiculatim producta. Variat foliis etiam floralibus profunde cordatis, vel superioribus etiam caulinis basi rotundatis, corollis nunc vix pollicaribus, sæpius 15- vel interdum 16-17-linearibus, albidis, rubris vel variegatis, hirsutie totius plantæ, calycis lobo supremo integro vel 2-3 dentato, interdum fere bifido, sed mihi nec in species nec in varietates distinctas dividenda videtur.

Species e genere excludenda.

M. JAPONICA Thunb. = Scrophularinea quædam?

LXXII. PHYSOSTEGIA.

Dracocephali sp. Linn. et Auct.

Physostegia. Benth. in Bot. Reg. 15. ad calc. n. 1289.

Calyx per anthesin tubuloso-campanulatus, post anthesin inflato-campanulatus, obscure sub-10-venius, subæqualiter 5-dentatus vel truncatus vix dentatus. Corolla tubo longe exserto, intus exannulato, fauce inflata, limbo bilabiato, labio superiore suberecto subconcavo integro vel emarginato, inferiore patente trifido, lobis rotundatis, medio majore emarginato. Stamina 4, sub labio superiore adscendentia, subdidynama, inferioribus eminentibus. Antheræ approximatae, biloculares, loculis parallelis distinctis nudis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, lævia.

The two North American species which, from their close affinity in habit, I have here joined together in the same genus, differ, however, almost as much from each other in their calyx and corolla as from *Macbridea*; and all three come very near to *Melittis*, from which their general habit separates them.

1. P. VIRGINIANA, calycibus acute quinquedentatis.

Dracocephalum virginianum. Linn. ! Spec. 828. Bot. Mag. 13. t. 467.

Dracocephalum lancifolium. Mæench. Meth. 410.

Dracocephalum variegatum. Vent. Hort. Cels. t. 44.

Dracocephalum denticulatum. Ait. Hort. Kew. 2. 317. Bot. Mag. 6. t. 214.

Dracocephalum speciosum. Sweet. Brit. Fl. Gard. 1. t. 93.

Dracocephalum obovatum. Elliott. Bot. of S. Carol. and Georg. 2. 86.

Prasium purpureum. Walt. Fl. Carol. 166.

Prasium coccineum. Walt. Fl. Carol. 166.

Hab. in Americæ borealis montosis a Canada Beck, humidisque Virginie et Carolinæ Pursh, Torrey ! &c., ad Novum Aurelianum et

provinciam Texas Mexicanorum *Drummond!* et ad flumen Columbiae orae boreali-occidentalis *Douglas!* (*h. s. sp.*)

Herba 2-3-pedalis, sæpius omnino glabra, rarius pubescentia tenuissima in parte superiore induta. Caules parum ramosi, tetragoni, læves. Folia sessilia, plerumque lanceolata, interdum oblongo-ovata vel obovata, sæpius acuta, irregulariter et acute serrata, basi angustata, utrinque viridia, lævia, crassiuscula, nervo medio subtus prominulo, cæterum subavenia; floralia infima subconformia, cætera omnia bractæformia, calycibus breviora, ovata, lanceolata vel linearia, acuta, sessilia, integerrima. Racemus terminalis simplex vel subpaniculato-ramosus, $\frac{1}{2}$ -1-pedalis. Flores oppositi, approximati vel distantes, subsessiles vel breviter pedicellati. Calyx florifer 3-linearis, fructifer 4-linearis, herbaceus, dentibus 5 brevibus, lanceolatis, acutis. Corolla incarnata vel purpurea, speciosa, 10-11 lineas longa, vel interdum ultrapollicaris, tubo a calycis ore ad faucem corollæ valde dilatato; limbi labium superius integrum, inferioris lobi laterales parvi, medius late rotundatus. Variat foliorum latitudine et dentibus, foliorum floralium forma, spicis nunc densis tetragonis nunc elongatis laxis, et corollarum colore, sed species supra enumeratæ vix ut varietates habendæ.

2. *P. TRUNCATA*, calycibus truncatis obscure 3-5-lobis, lobis latissimis denticulatis.

Hab. in America boreali: in provincia Texas Mexicanorum *herb. Hooker!* (*v. s. sp. in herb. Hooker.*)

Herba erecta, subsimplex, 1-1 $\frac{1}{2}$ -pedalis, caule pubescente. Folia et inflorescentia *P. Virginiani*. Folia floralia basi lato-ovata, calyces æquantia. Calyx magnitudine *P. Virginiani*, sed late campanulatus, apice venosus, membranaceus, margine sublacero-denticulatis, lobis plerumque 5 obscuris latissimis mucronulatis. Corolla parum brevior quam in *P. Virginiano*, labio superiore breviter bifido. Stamina distincte didynama. Filamenta villosa. Antheræ per paria approximatæ.

LXXIII. MACBRIDEA.

Macbridea. Elliott. Bot. of S. Carol. and Georg. 2. 86.

Calyx campanulatus, membranaceus, irregulariter venosus, trilobus, lobo superiore oblongo, inferioribus rotundatis. Corolla tubo longe exserto, intus exannulato, fauce inflata, limbo bilabiato, labio superiore erecto integro subconcavo, inferiore subbreiore patente, lobis rotundatis, medio latiore. Stamina 4, didynama, inferioribus longioribus, sub labio superiore adscendentia. Antheræ per paria approximatæ, biloculares, loculis divaricatis. Stylus apice brevissime bifidus.

A single North American species, closely allied to *Physostegia*.

1. *M. PULCHELLA* (Elliott! l. c.)

Thymbra caroliniana. Walt. Fl. Car. 162.

*Melittis caroliniana. Spreng. Syst. 2. 700.**

Prasium incarnatum. Walt. Fl. Carol. 165.

Hab. in America boreali: in Carolinae mediæ uliginosis *Elliott!* prope Augustam *Wray!* (*v. s. sp. in herb. Hooker et Torrey.*)

* To this Sprengel joins the *Melissa caroliniana*, apparently because it bears the same specific name, as there is no resemblance in the character given of the two plants.

Caulis herbaceus, erectus, pedalis, obtuse tetragonus, sulcatus, glaber. Folia petiolata, oblongo-elliptica, obtusiuscula, obscure serrata vel sinuata, basi rotundata vel cuneata, tenuia, vix venosa, utrinque glaberrima vel supra pilis raris conspersa; floralia sessilia, ovata, obtusa, integerrima, calycem vix æquantia. Verticillastri 1-2, ad apices caulis, subsexflori. Bracteæ nullæ. Calyces semipollicares, glabri, membranacei, virides, lobis obtusis. Corolla sesquipollicaris, glabra, tubo basi angustato, superne in faucem amplam dilatato. Filamenta villosa. Antherarum valvulæ margine breviter dentato-ciliatæ, intus filamentis polline commixtis pilosæ.

LXXIV. SYNANDRA.

Synandra. *Nutt. Gen.* 2. 29.

Calyx inflato-campanulatus, membranaceus, irregulariter venosus, dentibus 4! subæqualibus. Corolla tubo longe exserto, superne fauceque dilatato, intus exannulato, limbo bilabiato, labio superiore erecto subconcavo integro, inferiore patente trifido, lobis ovatis, medio latiore emarginato. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta exappendiculata, hirsuta. Antheræ per paria approximatae, glabræ, biloculares, loculis distinctis divaricatis, superiorum loculis supremis connatis obtusis cassis, cæteris omnibus acutis fertilibus. Styli lobus superior brevissimus, inferior longior, fere a basi stigmatifer. Achenia sicca, magna, subinflato-compressa, lævia.

A very remarkable North American genus, having some affinity to *Physostegia* and *Macbridea*, as well as to *Lamium*, but different from the whole tribe by the total disappearance of the upper lobe of the calyx, of which I cannot find any trace even in the nervation of the tube, in any of the few specimens I have been able to examine.

1. *S. GRANDIFLORA* (Nutt. l. c.)

Lamium hispidulum. *Michx. ! Fl. Bor. Am.* 2. 4.

Hab. in America boreali: in Kentucky *Torrey !* in sylvis Tennessee *Michaux !* in umbrosis ad Ohio prope Cincinnati *Nuttall. (h. s. sp. comm. a cl. Torrey.)*

Habitus fere *Lamii*. Caulis subsimplex, pedalis, pilis longis sparsis hispidulus. Folia pauca, inferiora longe petiolata, lato-ovata, subacuminata, crenata, basi cordata, tenuia, utrinque viridia, pilis raris hispidula; floralia sessilia, inferiora caulinis subconformia, superiora ovata, lanceolata, integerrima, suprema calycibus vix longiora. Verticillastri pauci, distantes, biflori. Bracteæ subnullæ. Calyces sessiles, e sepalis 4 connatis constantes; 2 lateralibus majoribus, nervis lateralibus superioribus distinctis, inferioribus cum nervis supremis sepalorum inferiorum confluentibus; 2 inferioribus parum minoribus, nervis lateralibus inferioribus subdistinctis, sepalo quinto supremo omnino a basi calycis abortivo. Corolla speciosa, albo-flavescens, fere sesquipollicaris, tubo basi tenui, dein valde dilatato in faucem amplissimam, extus glabra. Filamenta, præsertim in parte superiore, longe barbata.

LXXV. LAMIUM.

Lamium et Orvala. *Linn. et Auct.*Galeobdolon. *Huds. et Auct.*Pollichia. *Roth. Fl. Germ.*Erianthera. *Benth. in Hook. Bot. Misc. 3. 380. non Nees.*

Calyx tubuloso-campanulatus, sub-5-nervius, ore æquali vel sæpius obliquo, dentibus 5 subæqualibus vel superioribus longioribus, apice subulatis. Corolla tubo incluso vel sæpius exserto, intus nudo vel piloso-annulato; limbo bilabiato; labium superius ovatum vel oblongum, subfornicatum vel galeatum, basi plerumque angustatum; faux dilatata; lobi laterales ad margines faucis truncati vel rarius oblongi, appendicula dentiformi aucti vel mutici; medius latus emarginatus, basi contractus, substipitatus. Stamina 4, didynama, inferioribus longioribus. Antheræ per paria approximatae, biloculares, loculis demum divaricatis oblongis extus hirsutis vel nudis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, triquetra, angulis acutis apice truncata, lævia vel minute tuberculoso-rugosa. — Herbæ basi decumbentes. Folia infima longe petiolata, parva, caulina media majora, basi sæpius cordata, rugosa, plerumque duplicato-vel inciso-dentata; floralia subconformia, superiora minora sessiliora, omnia calyces superantia. Verticillastri densi, axillares, inferiores vel omnes remoti, superiores sæpe approximati. Bracteæ paucæ, calyce breviores, subulatae vel rarius lanceolatae. Corollæ rubræ, purpurascentes, albæ vel flavæ.

All the species are found in the old world, either in Europe or in the temperate parts of Asia.

This is a very natural genus, the foliage and habit of the plants being nearly the same in all, and most of the species offering the same variations in the hairiness and form of the leaves, and in the colour of the flower.

CONSPECTUS SPECIERUM.

SECT. I. ORVALA. *Corollæ tubus rectus, intus transverse annulatus. Antheræ glabræ.*

- | | |
|--|---------------------|
| Folia lato-ovata, crenata, rugosa, villosa | . 1. L. ORVALA. |
| Folia inciso-lobata, vix rugosa, subglabra | . 2. L. MULTIFIDUM. |

SECT. II. LAMIOPSIS. *Corollæ tubus rectus, intus nudus vel transverse annulatus, fauce ampla. Antheræ hirsutæ.*

Galea integra vel emarginata.

Herbæ perennes. Corollæ amplæ. Galea lata.

Herba villosa vel lanata.

Herba ramosa 3. L. GARGANICUM.

Herba simplex vix semipedalis. Folia
rhomboidea 4. L. RHOMBOIDEUM.

Herba subglabra.

Folia ovata, cordata 5. L. LONGIFLORUM.

Folia parva reniformia, omnia longe
petiolata 6. L. VERONICÆFOLIUM.

Herbæ annuæ. Corollæ tenues.

Folia ovata. Verticillastri approximati.

Folia crenata 11. *L. PURPUREUM.*

Folia inciso-lobata 12. *L. INCISUM.*

Folia orbiculata, floralia sessilia vel amplexicaulia. Verticillastri omnes distincti.

Corollæ lobi laterales dente aucti 10. *L. INTERMEDIUM.*

Corollæ lobi laterales (faucis marginibus) nudi 9. *L. AMPLEXICAULE.*

Galea bifida.

Folia ovata, cordata, dentata 7. *L. STRIATUM.*

Folia inciso-lobata 8. *L. BIFIDUM.*

SECT. III. LAMIOTYPUS. *Corollæ tubus intus annulatus, recurvo-porrectus, fauce parum dilatata. Antheræ hirsutæ.*

Corollæ lobi laterales muticæ vel dente brevi appendiculati.

Dentes calycini faucem corollæ amplissimam superantes 13. *L. MOSCHATUM.*

Dentes calycini faucē corollæ obliqua tenui breviores 14. *L. PETIOLATUM.*

Corollæ lobi laterales dente subulato appendiculati.

Folia villosissima. Dentes calycini plumosi 16. *L. TOMENTOSUM.*

Folia glabra vel villosa. Dentes calycini glabri, vel villosuli 15. *L. VULGATUM.*

SECT. IV. GALEOBDOLON. *Corollæ tubus intus oblique annulatus, subrecurvo-porrectus. Antheræ glabræ.*

Corolla rubra 17. *L. PUBESCENS.*

Corolla alba 18. *L. FLEXUOSUM.*

Corolla lutea 19. *L. GALEOBDOLON.*

SECTIO I. ORVALA.

Orvala. *Linn. Gen.*

Corollæ tubus rectus, intus transverse annulatus; faux amplissima; galea ovata. Antheræ glabræ.

1. *L. ORVALA* (Linn.! Spec. 808), foliis amplis lato-ovatis basi truncatis cordatisve rugosis subvillosis, corollæ tubo recto exserto, intus piloso-annulato, fauce amplissima, galea ovata integra, lobis lateralibus brevissimis muticis, antheris glabris.

L. Orvala. *Bot. Mag.* 5. t. 172.

L. pannonicum. *Scop. Fl. Carn.* t. 27.

Orvala lamioides. *DC. Fl. Fr.* 3. 539.

β foliis inciso-dentatis.

Orvala garganica. *Linn.! Spec.* 2. 807.

Hab. in Italia Pannonia et Istria *Willdenow*, in Pedemontio *Allioni*, prope Nannetem in Gallia *Bonamy*. (*h. s. c.*)

Folia latiora, majora quam in *L. garganico*, pilis brevibus villosa vel fere glabra.

Caulis fere glaber. Folia floralia flores longe superantia. Verticillastri sub-10-flori. Bracteæ paucae, lineares, breves. Calyx coloratus, fere glaber. Corolla rubra vel purpurascens, 15 lin. vel fere sesquipollicem longa. Galea extus pubescens, margine ciliata.

2. *L. MULTIFIDUM* (Linn.! Spec. 809), foliis superioribus inciso-lobatis utrinque glabris, corollæ tubo recto exserto intus annulato (?), galea oblonga, fauce amplissima, lobis lateralibus brevissimis muticis, axillaribus glabris.

Hab. in Oriente *Tournefort!* (v. s. sp. in herb. *Banks et Vahl.*)

Caulis erectus, semipedalis vel vix pedalis, pubescens. Folia inferiora ovalia, obtusissima, apice integerrima, medio crenata, basi cuneata, superiora 1½-pollicaria, obtusa, profunde et obtuse lobata; floralia acutiora, angustiora, floribus subbreviora, omnia incisa. Bracteæ breves, ovatae, acutae. Verticillastri multiflori, distantes. Calyces sessiles, adpresse villosi. Corollæ pollicares vel parum longiores. Galea basi valde angustata, extus lanata. Labium substipitatum, bifidum?

SECTIO II. LAMIOPSIS.

Lamiopsis. Dumort. Florul. Belg. 45.

Corollæ tubus rectus, intus nudus vel transversim piloso-annulatus; faux amplissima. Antheræ extus hirsutæ.

3. *L. RHOMBOIDEUM*, humile, simplex, foliis rhomboideis rugosis utrinque calycibusque velutino-lanatis, corollis amplis calyce triplo longioribus, tubo recto intus nudo, fauce ampla, galea lata, lobis lateralibus ovatis integris, antheris hirsutis.

Erianthera rhomboidea. Benth. in Hook. Bot. Misc. 3. 380.

Hab. in Indiæ orientalis provincia Kanaour *Royle!* (h. s. sp. comm. a cl. *Royle.*)

Caulis humilis vix semipedalis, simplex, adscendens, tomentoso-villosus. Folia caulina parva, pauca; floralia numerosa, petiolata, rhomboidea, infima subintegerrima, superiora profunde crenata, omnia obtusissima, basi cuneata, rugosa, utrinque lanato-villosa. Verticillastri subbiflori. Bracteæ subulatae, molliter lanatae, calycem æquantes. Calyx semipollicaris, molliter villosus, dentibus lanceolato-linearibus. Corolla fere sesquipollicaris, extus pubescens, magnitudine corollæ *L. garganici*. Labia longitudine subæqualia, lobi laterales oblongi, paullo majores quam in cæteris *Lamiis*. Achenia nonnisi immatura suppetunt, sed subcarnosa videntur.

The greater development of the lateral lobes of the corolla had at first induced me to consider this as a separate genus; but having now carefully examined all the species of the genus, I find that this one cannot really be distinguished. It is especially very nearly allied to *L. garganicum*.

4. *L. GARGANICUM* (Linn.! Spec. 808), foliis cordatis rugosis utrinque molliter villosis, calycibus villosis, corollis calyce quadruplo longioribus, tubo recto, intus nudo, fauce amplissima, galea lata, lobis lateralibus angulatis vel dente brevissimo appendiculatis, antheris hirsutis.

L. garganicum. Sm. Exot. Bot. 1. t. 48.

L. Michelianum. Tausch. in Bot. Zeit. 1831. 1. 215.?

Hab. in Europa mediterranea: in Pedemontio *Allioni*, in Gargano

monte ad castrum Angeli *Willdenow*, *Tenore*, in Græciæ monte Hy-metto *Zuccarini*! in Laconia et Cretæ montibus tum in Olympi Bithyni summitate *Sibthorp*! (*h. s. c. et v. s. sp.*)

Caulis adscendens, pedalis uti folia et calyces pilis longis albidis dense et mol-liter villosus. Folia forma fere *L. vulgati*, plerumque parum minora; floralia floribus plerumque breviora. Verticillastri 10-20-flori, densi. Bractæ brevissimæ. Calyces sessiles, parum obliqui, dentibus tubo brevioribus, lanceolatis, acuminatis, vix apice subulatis. Corolla 15 lin. longa, rubra, extus villosa, intus glaberrima; loborum lateralium dens obtusus, rarius bifidus; labium basi contractum, latissime obcordatum, subbifidum. Antheræ hirsutissimæ.

5. *L. LONGIFLORUM* (Ten.! Fl. Nap. Prod. 34. Syll. 285), caule glabriusculo, foliis cordatis subrugosis glabris subvillosisve, verticillastris multifloris, calycibus glabris, corollis calyce subquadruplo longioribus, tubo recto intus nudo, fauce amplissima, galea lata, lobis lateralibus angulatis vel dente brevissimo appendiculatis, antheris hirsutis.

L. lævigatum. DC. Fl. Fr. 3. 541. et Auct. plur. quoad exempl. e Europa australi, non Linn.

L. Pedemontanum. Reichb. Fl. Germ. Exc. 322. ?*

Hab. in Europæ australis montosis: in Pyrenæis *Gouan*! Gallo-provinciae monte Ventoso *Requien*! Pedemontio et Apenninis superioribus *Reichenbach*, regno Napolitano *Tenore*! Sicilia *Gussone*! Græcia *Sibthorp*! (*h. s. sp.*)

A. *L. garganico* vix ac ne vix glabritie differt.

6. *L. VERONICÆFOLIUM*, glabrum, foliis parvis longe petiolatis reni-formibus inciso-crenatis vel digitato-lobatis basi late subcordatis, verticillastris bifloris, calycibus glabris, dentibus lanceolatis acutis, corollis calyce quadruplo longioribus, tubo recto vel basi subrecurvo adscendente, intus nudo, galea ovata basi angustata, fauce amplissima, lobis lateralibus dente brevi appendiculatis, antheris hirsutis.

Hab. in Græcia *Sibthorp*! (*v. s. sp. in herb. Sibthorp, cum L. longifloro et vulgato sub nomine L. maculati.*)

Species distinctissima, foliis inferioribus *L. amplexicauli*, corolla *L. longifloro* affinis. Herba perennis, humilis, caulibus adscendentibus 4-6-pollicaribus. Folia fere *Veronicae hederaceæ*, petiolo 6-12-lineari, limbo vix 4-lineari, utrinque glabra vel pilis rarissimis pubescentia, crenaturis profundis, paucis; floralia conformia, uti caulina longe petiolata. Corolla sesquipollicaris, fauce amplissima, labio superiore lato ovato acutiusculo villosa. Antheræ pilis longis numerosis hispidæ.

7. *L. STRIATUM* (Sibth. et Sm.! Fl. Gr. 6. 46. t. 557), foliis ovatis profunde crenatis basi late subcordatis supremis approximatis flores superantibus vel vix brevioribus, corollis calyce glabro triplo longioribus, tubo recto tenui, fauce dilatata, galea longissima apice bifida, lobis lateralibus angulatis dente brevi obtuso appendiculatis, antheris hirsutis.

Hab. in Græciæ et Archipelagi Græci ruderatis copiose *Sibthorp*! (*v. s. sp. in herb. Sibthorp.*)

* “ *L. caule lævigato pruinoso, foliis cordatis inciso-serratis acuminatis calycibusque nitidulis dentibusque tubo brevioribus lanceolatis ciliatis, corollæ (maximæ) galea emarginata, faucis dente laterali abbreviato obtuso.*”—*Reichb. l. c.*

Habitus fere *L. vulgati*, sed folia tenuiora, minora, et basi minus cordata; floralium petioli calyce breviores. Corolla sesquipollicaris, labio superiore 7-8 lin. longo, oblongo-lineari, extus villosa. Stamina vix ad dimidium labii superioris attingentia. Affine *L. bifido*, at diversa foliorum forma, calycibus rectioribus longioribus, corollis majoribus.

8. *L. BIFIDUM* (Cyr. Pl. Rar. fasc. 1. 22. t. 7), foliis ovatis superioribus acuminatis omnibus inciso-lobatis crenato-dentatis supremis approximatis flores superantibus vel vix brevioribus, corollæ tubo recto intus nudo, fauce dilatata, galea elongata apice divaricato-bifida, lobis lateralibus dente brevi lineari appendiculatis, antheris hirsutis.

L. bifidum. Ten. ! *Fl. Nap.* t. 153. f. 2.

β *clandestinum*, corollis abortione minutis.

L. cryptanthum. Guss. *Prod. Fl. Sic.* 2. 97. Reichb. *Icon. Bot. Eur.* 8. 3. t. 707.

Hab. in regione Mediterranea: in Corsica *Requien* ! Sicilia *Gussone* ! et regno Napolitano *Tenore* ! (*h. s. sp. comm. a cl. Requien et Gussone.*)

Habitus *L. purpurei*. Folia petiolata, infima profunde crenata, superiora pollicaria, apice obtusiuscula, late et profunde crenata, basi irregulariter incisa, utrinque viridia vel supra albo-lineata, plus minusve villosa. Verticillastri multiflori, inferiores remoti, supremi subcapitati. Bracteæ paucæ, subulatæ vel nullæ. Calyx pubescens, ovatus, apice incurvus, ore valde obliquo, dentibus lanceolatis, acutis, apice subulatis, tubo brevioribus vel vix longioribus. Corolla alba, plerumque dimidio longior quam in *L. purpureo*. Var. β non differt nisi corollis, ut in *Labiatis* plurimis occurrit, abortione brevissimis.

9. *L. AMPLEXICAULE* (Linn. ! Spec. 809), foliis orbiculatis caulinis petiolatis, floralibus amplexicaulibus omnibus subinciso-crenatis, corollæ tubo recto tenui intus nudo, fauce dilatata, galea oblonga integra, lobis lateralibus muticis, antheris hirsutis.

L. amplexicaule. Reichb. *Icon. Bot. Eur.* 3. 22. t. 224. f. 373. Hook. *Fl. Lond.* v. 2. ic. Sm. *Eng. Bot.* 11. t. 770.

Galeobdolon amplexicaule. Mæsch. *Meth.* 393.

Pollichia amplexicaulis. Willd. *Fl. Berol.* 198. Roth. *Fl. Germ.* 1. 254.

β *clandestinum* (Reichb. *Icon. Bot. Eur.* 8. 3. t. 708), corollis abortione minutis.

Hab. in Europæ, Africæ borealis, et Asiæ mediæ necnon Americæ borealis ruderalis: in Europa vulgare a Scotia! Suecia *Fries* ! et Petropoli *Sobolewski*, ad Lusitaniam, Siciliam *Gussone*, Græciam *Sibthorp* ! Byzantium *Olivier* ! in Barbaria *Desfontaines*, circa Aleppum *Russell*, in regione Tauro-Caucasico et Caspico *Bieberstein*, C. A. *Meyer*, &c., in omni jugo Himalayano *Royle* ! *Wallich* ! &c., in America boreali ! indigenum ? vel ex Europa allatum ? (*v. v. et h. s. sp.*)

Herba annua, decumbens, basi ramosissima. Rami semipedales vel vix pedales, apice adscendentes, glabriusculi. Folia caulina pauca, longe petiolata, vix semipollicaria, forma *Veronicæ hederæfoliæ*, utrinque glabriuscula vel hispidula; floralia latissima calyces amplectentia et ea superantia, subtus venis elevatis hispidulis, supra plerumque villosa. Verticillastri dense multiflori, omnes distincti, inferiores remoti, supremi sæpe approximati. Bracteæ subnullæ. Calyces sessiles, campanulati, ore vix obliquo, dentibus lanceolato-subulatis tubum subæquantibus vel longioribus, molliter villosis. Corolla purpurea, pubescens, tubo longe exserto. Lobos

laterales (vel faucis margines) constanter muticos observavi, nec ut in icone *Reichenbachio* appendiculatos. Si appendiculæ occurrunt, distinctio inter hanc speciem et *L. intermedium* evanescit. Antheræ pilis paucis hirsutæ.

10. *L. INTERMEDIUM* (Fries! Nov. Fl. Suec. ed. 1. 105. ed. 2. 192), foliis orbiculatis caulinis petiolatis, floralibus amplexicaulibus omnibus subinciso-crenatis, calycis dentibus subulatis tubo longioribus, corolla tubo recto tenui intus nudo, fauce dilatata, galea oblonga integra, lobis lateralibus dente brevi appendiculatis, antheris hirsutis.

L. intermedium. Reichb. Icon. Bot. Eur. 3. 22. t. 224. f. 372. et 8. 9. t. 721.

L. moluccellæfolium. Fries. Nov. Fl. Suec. 72. ex Reichb. l. c.

Hab. in Scania *Fries!* et Germania septentrionali *Reichenbach.* (v. s. sp. in herb. *Lindley.*)

Habitu foliisque *L. amplexicauli* simillimum, et vix diversum dentibus calycinis elongatis et corollæ lobis lateralibus dente brevi lanceolato acuto appendiculatis. Cæterum *L. amplexicauli* multo affinius quam *L. purpureo.*

11. *L. PURPUREUM* (Linn.! Spec. 809), foliis inferioribus orbiculatis, floralibus ovatis omnibus crenatis supremis approximatis flores superantibus, corollæ tubo recto tenui basi intus piloso-annulato, fauce dilatata, galea oblonga integra, lobis lateralibus dente brevi lineari appendiculatis, antheris hirsutis.

L. purpureum. Hook. Fl. Lond. v. 2. ic. Sm. Eng. Bot. 11. t. 769.

L. nudum. Mæench. Meth. 393. Crantz. Stirp. Austr. 259.

β molle, foliis minus rugosis, obtusioribus, pauci-crenatis.

L. molle. Ait.! Hort. Kew. 2. 297. fide Herb. Banks.*

Hab. in Europa omni necnon Asiæ ruderatis a Scotia! Suecia *Fries*, et Petropoli *Sobolewski*, ad Lusitaniam *Brotero*, Hispaniam! Italiam *Tenore*, &c., Byzantium *Sibthorp!* in regione Tauro-Caucasico *Bieberstein*, &c., et in jugo Altaico *Ledebour.* (v. v. et h. s. sp.)

Herba basi decumbens, foliis parvis distantibus longe petiolatis, superne ascendens, foliosa, apicibus sæpe purpurascentibus. Caules semipedales vel rarius vix pedales. Folia omnia rugosa, utrinque villosa. Verticillastri multiflori, ad apices caulis dense approximati, subcapitati, vel infimo remoto. Folia floralia e capitulo eminentia, caulinis conformia, at gradatim minora. Calyces petiolo breviores vel vix eum superantes. Corolla plerumque semipollicaris, rubra, rarius alba. Galea extus villosa. Antheræ pilis paucis hirsutæ.

12. *L. INCISUM* (Willd. Spec. 3. 89), foliis inferioribus orbiculatis, floralibus lato-ovatis omnibus inciso-dentatis lobatis supremis approximatis flores superantibus, corolla tubo recto basi intus piloso-annulato, fauce dilatata, galea oblonga integra, lobis lateralibus dente brevi lineari appendiculatis, antheris hirsutis.

L. incisum. Sm. Engl. Bot. 27. t. 1933. Reichb. Icon. Bot. Eur. 3. 21. t. 223.

L. hybridum. Vill. Fl. Delph. 1. 251.

L. dissectum. With. Brit. Pl. 527.

L. urticæfolium. Weihe ex Reichb. Fl. Germ. Exc. 321.

* Huic adjecta sunt in herbario Banksiano exemplaria 2, ex horto quodam antiquiore, quæ ad speciem propriam corollæ forma distinctissimam pertinere videntur, sed ob exemplaribus mancis a vermibus partim destructis describere nequivi.

L. Westphalicum. *Weihe! et ex Reichb. l. c.*

L. Coesfeldiæ. *Weihe ex Reich. l. c.*

Hab. in Europæ præsertim septentrionalis arvis: in Scotia *Hooker*, Anglia! Suecia *Fries!* Gallia! Germania! (*v. v. et h. s. sp.*)

Folia ut in *L. bifido* incisa. Flores *L. purpurei*. Forsan hujus varietas, at mihi constanter diversum videtur. Variat uti *L. purpureum* corollis nunc breviter nunc longe exsertis, verticillastris nunc omnibus approximatis, nunc inferioribus longe remotis.

SECTIO III. LAMIOTYPUS.

Lamiotypus. *Dumort. Florul. Belg. 45.*

Corollæ tubus intus transversim annulatus, sub annulo contractus, supra annulum dilatatus, subventricosus, subrecurvo-porrectus; faux parum dilatata. Antheræ extus hirsutæ.

13. *L. MOSCHATUM* (Mill.! Dict. n. 4), foliis ovatis cordatis glabrusculis dentibus calycinis longe lanceolato-subulatis, corollæ tubo amplo brevi, intus piloso-annulato subrecurvo-porrecto, fauce amplissima, galea tubo longiore, lobis lateralibus breviter obtuse acuminatis vix appendiculatis, antheris hirsutis.

L. calycinum. *Durv. Enum. Pl. Arch. in Mem. Soc. Linn. Par. 323. ?**

Hab. in regione mediterranea orientali: in Archipelagi Græci ins. Epidauro *Zuccarini!* Sami *Durville*, Smyrnæ (*fide exempl. hortensium*) (*h. s. c. et v. s. sp. in herb. Mart. et s. c. in herb. plur.*)

Habitus *L. vulgati*, sed corolla distinctissimum. In exemplare unico suppetente, caulis et calyces glaberrimi sunt, folia pilis brevibus sparsis hirtella. Folia floralia flores superant. Corollæ albæ? tubus dentibus calycinis brevior, glaber; galea extus apice dense villosa, basi longe angustata; lobi laterales potius angulati quam appendiculati, lobus infimus maximus stipitatus.

14. *L. PETIOLATUM* (Royle! Benth. in Hook. Bot. Misc. 3. 381), foliis ovato-lanceolatis acuminatis basi vix cordatis, dentibus calycinis longe subulatis, corollæ tubo amplo, intus piloso-annulato recurvo-porrecto, fauce vix dilatata, galea elongata, lobis lateralibus muticis vel breviter setaceo-appendiculatis, labio brevissimo, antheris hirsutis.

Hab. in Indiæ Orientalis jugo Himalayano vulgare *Royle!* in Kamaon *Wallich!* (*h. s. sp. comm. a cl. Royle.*)

Affine *L. vulgato*, sed foliis et corolla diversum. Habitus *L. flexuosi*, a quo differt antheris hirsutis, &c. Herba tenerior quam *L. vulgatum*. Caules pilis reflexo-patentibus hirsuti. Folia inferiora longe petiolata; floralia sessilia; omnia basi sæpius rotundata vel truncata, vel infima cordata, superiora longe acuminata, grosse subduplicato-serrata, utrinque viridia, hispidula. Bractæ lineari-subulatæ, calycis tubum subæquantes. Verticillastri plerumque multiflori. Dentes calycini molliter hispidi, tubum corollæ æquantes. Corolla alba, tubo ventricoso superne et

* “*L. caule suberecto, ramoso, glaberrimo, fistuloso, foliis cordatis rugosis lanatis pubescentibus summis etiam subpetiolatis, calycibus lævibus reticulatis flori subæqualibus, dentibus calycinis longissimis arcuatis subulatis vix ciliatis, floribus confertis sessilibus, verticillis numerosis inferne remotis. Flores albidii. Corolla extus villosa.*” — *Durv. l. c.*

basi contracto, fauce obliqua plerumque nuda interdum dentibus utrinque 1-2 instructa. Galea extus villosa. Labium galea dimidio brevius. Antheræ pilis paucis hirsutæ.

15. *L. vulgatum*, foliis ovatis cordatis vel basi truncatis rugosis plerumque villosis, dentibus calycinis longe subulatis glabris vel villosulis, corollæ tubo amplo intus piloso-annulato recurvo-porrecto, fauce subdilatata, galea oblonga, lobis lateralibus dente longo subulato appendiculatis, antheris hirsutis.

α rubrum.

L. maculatum. Linn.! *Spec.* 809. *Reichb. Ic. Bot. Eur.* 3. 12. t. 215. *Sibth. et Sm.! Fl. Gr.* 6. 46. t. 556. (*exempl. maculata*). *Sm. Eng. Bot.* 36. t. 2550. (*exempl. immaculata*.)

L. rugosum. Ait.! *Hort. Kew.* 2. 296. *Reichb. Ic. Bot. Eur.* 3. 14. t. 217. non *Sibth. et Sm.*, nec *Guss. nec Ten.* (*exempl. immaculata*.)

L. rubrum. Wallr.! *Sched. Crit.* 300.

L. mutabile. Dumort. *Florul. Belg.* 45.?

L. hirsutum. Lam. *Dict.* 3. 410. (*exempl. immaculata, villosa*).

L. stoloniferum. Lap.! *Abr. Pyr.* 333. (*exempl. immaculata, grandiflora, multiflora*).

L. grandiflorum. Pourr. *Act. Acad. Tolos.* 3. 322.

L. lævigatum. Linn.! *Spec.* 808. *Reichb. Icon. Bot. Eur.* 3. 14. t. 216. non *Auct. omn.* (*exempl. glabriora*).

L. melissæfolium. Mill. *Dict. n.* 5.?

β album.

L. album. Linn.! *Spec.* 809. *Hook. Fl. Lond. v.* 2. ic. *Sm. Eng. Bot.* 11. t. 768.

L. niveum. Hortul.

L. foliosum. Crantz *Stirp. Austr.* 258.

Hab. in Europæ, Africæ borealis, et Asiæ mediæ arvis ruderatis umbrosis montanis, &c. a Scotia! Suecia *Fries*, et Petropoli *Sobolewski*, ad Lusitaniam! Hispaniam! Siciliam! regnum Neapolitanum! et Græciam! in Barbaria *Desfontaines*, regione Tauro-Caucasico et Caspico *C. A. Meyer!* et Altaico *Ledebour*. Varietates *α* et *β* sæpe intermixtæ; var. *β* in borealibus, *α* in australioribus vulgatior. (*v. v. et h. s. sp.*)

Planta villositate foliorum, dentibus, numero et colore florum, valde variabilis, at constanter corollæ forma recognoscenda. Caules plerumque basi decumbentes, ramosi, ramis simplicibus adscendentibus plerumque subpedalibus. Folia infima parva, sæpe vix semipollicaria, longe petiolata, media 1-3-pollicaria, apice obtusa, acuta, vel longe acuminata, margine crenata, duplicato-dentata vel subincisa, basi late cordata sinubus profundis obtusis, vel rarius tantum truncata, utrinque viridia, vel in utraque varietate supra plus minusve albo-lineata vel maculata, plus minusve rugosa et villosa. Floralia conformia vel basi minus cordata, apice longius acuminata, brevius petiolata, sæpius flores excedentia, interdum vero iis subbreviora. Bractæ minutæ. Flores in verticillastro 10-20, nec in speciminibus albifloris crebriores quam in purpureis. Calyces nunc fere glabri, sæpius præsertim dentibus ciliato-hirsutis. Corollæ vix cum galea pollicaris. Tubus basi contractus, prope basin intus anulum pilorum ferens, dein ampliatus, subtus ventricosus, recurvo-adscendens, sub fauce subcontractus. Faux dilatata, sed multo minus quam in *L. garganico*. Galea oblonga, basi angustata, recta, bicarinata, carinis ad occiput concurrentibus, apice valde incurva, subincumbens. Lobi laterales subtriangulares, appendice subulato deflexo. Achenia triquetra, apice truncata.

16. *L. tomentosum* (Willd. *Spec.* 3. 90), foliis ovatis cordatis rugosis villosissimis, dentibus calycinis subulatis plumoso-ciliatis, corollæ tubo amplo, intus piloso-annulato recurvo-porrecto, fauce subdilatata,

galea oblonga, lobis lateralibus dente longo subulato appendiculatis, antheris hirsutis.

L. Columnæ. Ten. ! Ind. Sem. Hort. Nap. 1827. Syll. Fl. Nap. 286.

Hab. in Europa austro-orientali et Asia media : in Italia australi Gussone ! Armenia Willdenow, in regione Tauro-Caucasico et Caspico vulgare Bieberstein, C. A. Meyer ! (h. s. sp. comm. a cl. Gussone et Meyer.)

Vix ac ne vix a L. vulgato differt foliis minoribus villosioribus et dentibus calycinis villosissimis. Verosimiliter L. vulgati varietas. Exemplaria Italica quasi media sunt inter exemplaria Caspica hujus plantæ, et exempl. villosiora L. vulgati.

SECTIO IV. GALEOBDOLON.

Corollæ tubus intus oblique annulatus, sub annulo contractus, supra annulum dilatatus, subventricosus, subrecurvo-porrectus; faux parum dilatata; galea oblonga, basi longe angustata. Antheræ glabræ.

17. L. PUBESCENS (Sibth. ! in Herb. Banks MSS.), foliis ovatis basi truncatis subcordatisve, superioribus acuminatis, omnibus rugosis villosis, corollæ (rubro-purpureæ) tubo basi contracto, intus oblique annulato superne ventricoso-ampliato subrecurvo-porrecto, fauce subdilatata, galea elongata integra, lobis lateralibus angulatis, angulo mutico vel breviter setaceo-appendiculato, antheris glabris.

L. rugosum. Sibth. et Sm. ! Fl. Gr. 6. 45. t. 555. * Guss. ! Fl. Sic. Prod. 2. 94. Ten. ! Fl. Nap. 2. 19. ? non Ait.

Hab. in Sicilia Gussone ! Sibthorp ! regno Neapolitano Tenore ! (h. s. sp. comm. a cl. Gussone.)

Vix ac ne vix a L. flexuoso differt corollis dimidio majoribus villosioribus purpureo-rubris, et foliis villosioribus. Dentes calycini ut in L. flexuoso longitudine et villositate variant. Bracteæ plerumque latiores sunt.

18. L. FLEXUOSUM (Ten. ! Fl. Nap. 2. 19. t. 52. Syll. 287), foliis ovatis acuminatis basi truncatis subcordatisve glabriusculis vel vix villosis, corollæ (albæ) tubo basi contracto, intus oblique annulato superne ventricoso-ampliato subrecurvo-porrecto, fauce subdilatata, galea elongata integra, lobis lateralibus angulatis, angulo mutico vel setaceo-appendiculato, antheris glabris.

L. flexuosum. Reichb. Icon. Bot. Eur. 8. 3. t. 706.

L. Petitinum. Gay ! ined.

Hab. in regione mediterranea : in Galliæ agro Ruscinonensi ! Sicilia Gussone ! regno Neapolitano Tenore ! (v. v. et h. s. sp.)

Caules basi procumbentes, sæpe radicanes. Rami adscendentes vel erecti, subsimplices, sæpius debiles, subpedales, pilis reflexis plus minusve villosi. Folia omnia petiolata, inferiora minora, obtusiora, superiora sæpius acuminata, omnia grosse subduplicato-dentata, viridia vel linea alba notata, nunc fere glabra nunc pilis paucis hispidula; floralia sæpe subincisa. Verticillastri 6-20-flori. Bracteæ lanceolatae vel lineares, tubum calycis sæpe æquantes. Calyces sessiles, glabri vel villosi, dentibus lanceolatis apice subulato-aristatis, tubo corollæ longioribus vel brevioribus, plerumque patentibus, supremo longiore. Corolla fere Galeobdolonis, lobis lateralibus latiusculis, et sæpius angulatis tantum, rarius dente brevissimo setaceo auctis, labio ut in Lamiis cæteris stipitato.

* The teeth of the lateral lobes of the corolla are figured much too long.

19. *L. GALEOBDOLON* (Crantz. Stirp. Austr. 262), foliis ovatis acuminatis basi truncatis subcordatisve glabriusculis pilosisve, corollæ (luteæ) tubo basi contracto superne subventricosso ampliato subrecurvo porrecto intus oblique annulato, fauce subdilatata, galea elongata integra, lobis lateralibus oblongis muticis vel brevissime appendiculatis labio vix brevioribus.

Galeopsis Galeobdolon. Linn. ! *Spec.* 810.

Pollichia Galeobdolon. Roth. *Fl. Germ.* 1. 254.

Leonurus Galeobdolon. Scop. *Fl. Carn.* n. 705.

Galeobdolon luteum. Huds. *Fl. Angl.* 258. Mœnch. *Meth.* 394. Hook. *Fl. Lond.* v. 2. ic. Sm. *Eng. Bot.* 11. t. 787.

Cardiaca sylvatica. Lam. *Fl. Fr.* 2. 384.

Pollichia vulgaris et montana. Pers. *Ann. Bot.* 14. 39.

Galeobdolon vulgare. Pers. *Syn.* 2. 122.

Hab. in Europæ, et præsertim septentrionalis, umbrosis, sylvaticis, sepibus, &c.: in Scotia! Anglia! prope Petropolim *Sobolewski*, in Gallia! Hispania! Italia *Tenore*, Germania! (v. v. et h. s. c.)

Herba erecta, pedalis vel sesquipedalis, sæpius fere glabra, interdum, præsertim in foliis cauleque inferioribus, pilis longis induta. Verticillastri numerosiores quam in cæteris speciebus, 6-15-flori. Folia floralia superiora lanceolata, basi in petiolum angustata, subinciso-dentata. Bracteæ lanceolatæ calycis tubo breviores. Dentes calycini breves, e basi lanceolato subulati, tubum corollæ æquantes. Corolla 8-9 lin. longa, galea tubo æquilonga, glabriuscula, margine ciliata, lobo infimo basi angustato.

Species *Leonuris* affinis, sed meo sensu a *Lamio flexuoso*, cui habitu præterea similis est, non generice separanda.

Species dubiæ.

L. HIRTUM (Poir. Dict. Suppl. 296).

Hab. in Horto Parisiensi cultum.

"*L. foliis ovato-cordatis pubescenti-hirsutis subincanis, caule calycibusque hirsutissimis, corolla parva subglabra.*

"Flores *L. albi* sed multo minores, fere glabri. Caulis hirtus *L. hirsuti*, sed corolla alba et calyces hirsutissimi. Folia mollia *L. mollis*, sed distincta crenaturis obtusis subregularibus, canescentia pubescentia, margine pilis albis numerosis ciliata, inferiora longe petiolata. Verticilli pauciflori. Calyces breves, villosissimi, dentibus 5 brevibus. Corolla alba, parva, erecta, glaberrima, vel oculo armato versus medium galeæ villosula."—Poir. l. c.

L. MICRANTHUM (Weinm. in Syll. Pl. Soc. Ratisb. 1. 68).

Hab in Brasilia *Weinmann*.

"*L. foliis oppositis, inferioribus petiolatis, superioribus sessilibus cordato-ovatis obtusis serratis, verticillis sexfloris.*

"Radix annua, fibrosa. Caulis tetragonus, pedalis, et cum omnibus plantæ partibus pilosus, pilis patentibus reflexisve. Calyx 5-partitus; dentes æquales, ciliatæ, seta terminatæ. Corolla parva, dentibus calycis fere adæquans, incarnata, labium superius fornicatum integrum, inferius emarginatum involutum edentulum. Primo intuitu *L. purpureum* refert, sed pilositate et corolla parva præcipue differt."—Weinm. l. c.

An *L. purpureum* vel forsan *Stachys arvensis*?

Species e genere excludenda.

L. HISPIDULUM Mich. = *Synandra grandiflora*.

LXXVI. LEONURUS.

Leonurus. *Linn. Gen.*Cardiaca, Chaiturus, et Panzeria. *Mæench. Meth.*

Calyx 5-nervius, turbinatus, subæqualis, ore truncato, dentibus 5, apice subulatis subspinosus, demum patentibus. Corolla tubo incluso vel rarius exserto, intus nudo vel oblique annulato, limbo bilabiato, labio superiore oblongo, integerrimo, nunc subplano basi angustato, nunc fornicato, inferiore patente trifido, lobis lateralibus oblongis, medio obcordato. Stamina 4, adscendentia, didynama, inferioribus longioribus. Antheræ per paria approximatae, biloculares, loculis parallelis transversalibus, rarius divergentibus, valvulis nudis. Stylus apice subæqualiter bifidus, lobis subulatis, rarius brevibus obtusis, apice stigmatiferis. Achenia sicca, lævia, triquetra, apice truncata, angulis acutis. — Herbæ erectæ. Folia plerumque inciso-lobata, inferiora rotundata, floralia angustiora, omnia flores longe superantia. Verticillastri densi, axillares, distincti. Bracteæ subulatae.

An European and North Asiatic genus, distinguished from *Lamium* and *Galeopsis* by the form of the corolla and anthers. It is very different from *Stachys* in habit; but the only tangible character which separates it from that genus consists in the truncate apex of the achenia. I do not find the "brilliant spots on the anthers," said to be characteristic of *Leonurus*. The section *Cardiaca* comes very near to the section *Galeobdolon* of *Lamium*, and *Chaiturus* to the genus *Marrubium*.

CONSPECTUS SPECIERUM.

SECT. I. CARDIACA. *Corollæ tubus oblique annulatus, galea subplana, labium patentissimum.*

Folia omnia ovata, subinciso-dentata.

Folia utrinque viridia 1. L. PUBESCENS.

Folia subtus cano-tomentosa 2. L. ROYLEANUS.

Folia inferiora palmatifida vel palmatipartita.

Laciniae foliorum ovatae vel lanceolatae. Calyx glaber vel villosus 3. L. CARDIACA.

Laciniae lanceolato-lineares. Calyx glaucescens 4. L. GLAUDESCENS.

Laciniae lineares. Calyx glaber vel villosus 5. L. TATARICUS.

SECT. II. CHAITURUS. *Corollæ tubus intus nudus, galea subfornicata, labio subpatente. Stamina subinclusa.*

Species unica 6. L. MARRUBIASTRUM.

SECT. III. PANZERIA. *Corollæ tubus intus nudus, galea fornicata, labium erectiusculum, lobo medio patente. Stamina e tubo exserta.*

Herba elata, glabra vel pubescens 7. L. SIBIRICUS.

Herba vix pedalis, albo-lanata 8. L. LANATUS.

Species non satis notæ: 9. L. JAVANICUS, 10. L. OBLONGIFOLIUS.

SECTIO I. CARDIACA.

Cardiaca. *Mæench. Meth.* 401.

Corollæ tubus intus oblique annulatus, supra annulum subventricosus. Labium superius subplanum basi angustatum, inferius patentissimum, lobo medio integro.

1. *L. PUBESCENS* (Benth. in Wall. Pl. As. Rar. 1. 63), tenuissime pubescens, foliis omnibus ovatis acuminatis subinciso-dentatis, corollis calyce subtriplo longioribus, tubo annulato, galea subplana, labio patente, lobo medio integro.

Hab. in Indiæ Orientalis montibus Kamaonensibus *Wallich!* Choor et Kanaourensibus *Royle!* (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Royle.*)

A cæteris speciebus recedit foliis potius dentatis quam lobatis, at infima non suppetunt. Verticillastri 20-30-flori, omnes remoti. Petioli florum floralium floribus longiores. Limbus 2-4-pollicaris, utrinque tenuissime pubescens vel fere glaber, dentes profundi, acuti, dentati. Bracteæ subulatæ, calycem æquantes, glabræ. Calyces glabri, tubi nervis vix conspicuis dentibusque glabris. Corolla major quam in *L. Cardiaca*.

2. *L. ROYLEANUS* (Benth. in Wall. Pl. As. Rar. 1. 63), caule erecto tenuiter tomentoso, foliis ovatis acuminatis inciso-serratis vel 3-5-lobatis supra villosis subtus cano-tomentosis, calycibus cano-tomentosis.

Hab. in Indiæ Orientalis monte Choor *Royle!* (*h. s. sp. in herb. Mus. Angl. Ind.*)

Caulis ramosus, axillis pilosis. Folia magis incisa quam in *L. Marrubiastro* et *pubescente*, angustiora et integriora quam in *L. Cardiaca*. Verticillastri multiflori, inferiores remoti, superiores approximati, spicati. Bracteæ subulatæ, glabræ, calyces æquantes. Dentes calycini subulati, rigidi, subpatentes. Specimen unicum in herbario Anglo-Indico servatum mancum est, nec corollas vidi; et ideo species incerta, forsan *L. pubescentis* varietas. In herbario Royleano proprio deest.

3. *L. CARDIACA* (Linn.! Spec. 817), pubescens, foliis caulinis inferioribus palmatifidis superioribus ovatis lobatis, floralibus oblongis subtrifidis basi longe angustatis, lobis omnium ovatis lanceolatisve, calycibus glabris villosisve, corollæ tubo annulato galea subplana, labio patente, lobo medio integro.

L. Cardiaca. *Sm. Eng. Bot.* 4. t. 286.

L. campestris. *Andrz. ex Besser Pl. Exs.* (*foliorum laciniae parum angustiores.*)

L. illyricus. *Hortul.*

Cardiaca vulgaris. *Mæench. Meth.* 401.

Cardiaca trilobata. *Lam. Fl. Fr.* 2. 383.

β *villosus*, foliis rugosioribus cauleque villosis, calycibus subvillosis.

L. villosus. *Desf. Cat. Hort. Par.* 73. *Durv.!* *Enum. Pl. Archip. in Mem. Soc. Linn. Par.* 325.*

* Durville observes, "Cum *L. Cardiaca* confundi non potest;" but the degree of pubescence, the number, and, to a certain degree, the size of the flowers in the common *L. Cardiaca*, vary so much, and these variations correspond so little with each other, that I confess I cannot draw any line of separation between the one and the other.

- L. condensatus.* Hornem. ! Hort. Hafn.
L. lacerus. Lindl. ! Hort. Trans. 6. 296.*
L. canescens. Dumort. Florul. Belg. 46.
L. neglectus. Schranck. in Syll. Pl. Soc. Ratisb. 2. 61.

β *crispus*, foliis margine undulato-crispis lacero-dentatis.

- L. crispus.* Murr. Comm. Hort. Gott. 8. t. 4.
Cardiaca crispa. Mœnch. Meth. 401. Sabb. Hort. Rom. 3. t. 43.

Hab. in Europæ totius et Asiæ mediæ dumetis, ruderatis, &c. : a Scotia *Hooker*, Suecia *Wahlenberg*, et Petropoli *Sobolewski*, ad Hispaniam ! Siciliam *Gussone*, Italiam *Tenore*, Thessalonicam et Byzantium *Sibthorp*, in regione Tauro-Caucasico *Bieberstein*, et Caucasico-Caspico *C. A. Meyer*, frequens prope Theodosiam *Durville* ! (v. v. et h. s. sp.)

Caulis 2-4-pedalis, basi ramosus, erectus. Rami tetragoni, rigidi, foliosi, pilis brevibus reflexis plus minusve pubescentes. Folia caulina infima circumscriptione fere orbicularia, superiora ovata, acuminata, basi subrotundo-truncata ; floralia gradatim angustiora, integriora, supremis subintegerrimis, petiolo flores superante ; omnia pubescentia, villosa vel rarius glabra, supra subrugosa, subtus palmatim 3-9 nervia, nervis venisque secundariis reticulatis prominentibus. Lobi foliorum caulinarum ovato-lanceolati, grosse dentati, floralium subintegerrimi. Verticillastri 6-15-flori, omnes distantes, racemum 1-1½-pedalem formantes. Bracteæ subulatae, glabræ. Calyces rigides, sessiles, dentibus patentibus e basi lanceolato acutissimis pungentibus. Corolla extus villosissima. Galea basi substipitata, oblonga.

4. *L. GLAUDESCENS* (Bunge ! in Ledeb. Fl. Alt. 2. 409), superne pubescentia glaucescenti canescens, foliis caulinis palmato-partitis incisis, lobis oblongo-lanceolatis, floralibus subtrifidis, laciniis foliisque supremis lanceolato-linearibus subintegerrimis, calycibus cano-pubescentibus, corollæ tubo annulato, galea subplana, labio patente, lobo medio integro.

- L. glaucescens.* Ledeb. Ic. Pl. Ross. Alt. t. 179.

Hab. in jugi Altaici occidentalibus frequens *Ledebour* ! (h. s. sp. comm. a cl. *Bunge*.)

Habitus fere *L. sibirici*, floribus *L. Cardiaceæ*. Folia ampla, profunde incisa, floralia multo angustiora et profundius incisa quam in *L. Cardiaca*. Glaucescencia primo intuitu recognoscitur.

5. *L. TATARICUS* (Linn. Spec. 818), glaber vel apice pubescens, foliis caulinis palmato-partitis incisis, floralibus subtrifidis, lobis omnibus foliisque supremis lanceolato-linearibus linearibusve, calycibus glabris villosisve, corollæ tubo annulato, galea subplana, labio patente, lobo medio integro.

- L. tataricus.* Reichb. Icon. Bot. Eur. 4. 31. t. 338.
L. altaicus. Spreng. Syst. 2. 738.

Hab. in Tataria *Linnæus*, Sibiria circa *Kolyvan Patrin* ! in rupetribus regionum Altaicorum orientalium frequens *Ledebour* ! (h. s. sp. comm. a cl. *Bunge*.)

* There was probably some mistake in raising the seeds of this plant, which induced the belief that it was of Indian origin. This variety of the *L. Cardiaca* is very common in continental botanical gardens, and may well have been introduced from thence, with other seeds, into that of the Horticultural Society.

Affinis *L. glaucescenti*, sed gracilior, statura humilior, folia tenuius incisa, flores minores. An species omnes hujus sectionis (excepto forsan *L. pubescente*) unius speciei varietates?

SECTIO II. CHAITURUS.

Chaiturus. *Mæench. Meth.* 401.

Corollæ tubus rectus, intus nudus. Labium superius subfornicatum, inferius erectiusculum, lobis subæqualibus, medio subintegro. Stamina tubo vix longiora, antherarum loculis divergentibus. Flores minuti.

6. *L. MARRUBIASTRUM* (Linn. Spec. 817), ramis elongatis pubescentibus, foliis oblongo-ovatis subinciso-dentatis utrinque angustatis, calycibus glabriusculis, corollis dentibus calycinis brevioribus, tubo intus nudo, labio superiore subfornicato inferiore erectiusculo, lobis subæqualibus, staminibus tubo vix longioribus.

L. Marrubiastrum. Jacq. Fl. Austr. 5. 3. t. 405.

Chaiturus leonuroides. Willd. Fl. Berol. 201.

Chaiturus Marrubiastrum. Ehrh.

Cardiaca Marrubiastrum. Schreb.

Hab. in Europæ præsertim orientalis et Asiæ Rossicæ dumetis ruderatis: in Gallia circa Etampes, Nannetem et in Arvernia *De Candolle*, in Germania præcipue australiori *Reichenbach*, in Pedemontio *Allioni*, Hungaria *Endlicher!* in regione Caucasico-Caspico *C. A. Meyer!* *Bieberstein*, Rossia Europæa australi! in Sibiria et jugo Altaico *Bunge!*—etiam in America septentrionali verosimiliter ex seminibus Europæis. (*h. s. sp.*)

Rami adscendentes, 1-3-pedales, obtuse tetragoni, sæpius pubescentia brevissima canescentes. Folia petiolata, 1-1½-pollicaria, supra glabriuscula, viridia, subtus pallida vel canescentia, tomentoso-pubescentia; floralia subconformia, gradatim minora, angustiora, omnia calyces superantia. Verticillastri densi, multiflori, numerosi, distantes. Bractæe numerosæ, subulatæ, calyces æquantæ. Calyces 3 lin. longi, dentibus subulatis spinosis divergentibus. Corollæ parvæ, albidæ, glabriusculæ.

This plant connects *Leonurus* with the section *Lagopsis* of *Marrubium*; its general habit, and truncate achenia, place it without doubt in the former genus, whilst the shortness of the stamina, divergent anthers, and small corolla, shew an approach to the characters of *Marrubium*.

SECTIO III. PANZERIA.

Panzeria. *Mæench. Meth.* 402.

Corollæ tubus rectus, intus nudus. Labium superius fornicatum, inferius erectiusculum vel lobo medio tantum patente, obcordato vel bifido. Stamina e tubo exserta.

7. *L. SIBIRICUS* (Linn.! Spec. 818), erectus, elatus, glaber vel tenuissime pubescens, foliis pinnati- vel palmati-partitis subincisis, floralibus supremis subintegerrimis, calycibus glabris vel tenuiter to-

mentosis, corollæ tubo intus nudo, galea fornicata, labio erectiusculo, lobo medio patente.

L. sibiricus. Reichb. *Icon. Bot. Eur.* 4. 30. t. 337. *Sm. Exot. Bot.* 2. 67. t. 94. *Sw. Brit. Fl. Gard.* 3. t. 204.

L. tataricus. Burm. ! *Fl. Ind.* 127. et sæpe *Hortul. non Linn.*

L. occidentalis. Hortul.

L. heterophyllus. Sw. *Brit. Fl. Gard.* 2. t. 197.

L. altissimus. Bunge ! *Nov. Gen. et Sp. Bor. Chin. ined.*

Panzeria multifida. Mærch. *Meth. Suppl.* 137.

Panzeria tripartita. Mærch. *Meth.* 402 ?

Stachys Artemisiæ. Lour. ! *Fl. Cochinch.* 365.

Hab. in Asia, Africa, et America calidiore: in Indiæ orientalis provincia Deyra Dhoon Royle ! Bengala et Sillet Wallich ! in Cochinchina Loureiro, et China Burmann ! prope Canton Vachell ! in China boreali Bunge ! et Dauria Fischer ! in Japonia Herb. De Candolle ! Java Blume, Burmann ! et ins. Timor Leschenault ! in Senegambia Africæ occidentalis Perrottet ! in Indiæ occidentalis insulis frequens in Jamaica ! Cuba ! Demerara ! ins. Sancti Thomæ ! Trinitatis ! &c., in Brasilia circa Rio Janeiro ! et in ins. Sanctæ Catherinæ Macrae !— Patria vera videtur Asiam esse, et in America ex seminibus Asiaticis allatam esse. (*h. s. sp.*)

Caules 2-6-pedales, ramosi, ramis obtuse tetragonis, tomento brevissimo adpresso sæpe canescentibus, demum glabratis viridibus. Folia omnia longe petiolata, inferiora latiuscula, subrotunda, incisa, lobis latis vix ultra medium limbi attingentibus ; caulina pleraque tripartita, laciniis oblongo-linearibus parum incisis, vel medio iterum tripartito ; floralia inferiora conformia, suprema oblongo-linearibus, integerrima, flores multo superantia ; omnia supra viridia, subglabra, subtus pallidiora, juniora pubescentia. Verticillastri densi, multiflori, inferiores remoti, supremi sæpius approximati, in racemo sæpe ultrapedali dispositi. Bracteæ numerosæ calyces subæquantes, subulatae, apice subspinescentes, glabræ vel pilosiusculæ. Calyx 3 lin. longus, viridis vel subcanescens, dentibus lanceolato-subulatis subspinescentibus. Corolla rubra, 5-6 lin. longa, extus pubescens ; galea oblonga, erecta, integra ; labium erectiusculum, lobis lateralibus oblongis obtusis erectis, medio patente lato subintegro. Achenia triquetra, apice truncata, hispida.

8. *L. LANATUS* (Spreng. *Syst. Veg.* 2. 738), caule humili albo-lanato, foliis omnibus palmati-partitis vel palmatifidis imis subtus cano-villosis lanatisve, calycibus albo-lanatis, corollæ elongatæ tubo intus nudo, galea fornicata, labio erectiusculo, lobo medio patente.

L. lanatus. Reichb. *Icon. Bot. Eur.* 8. 15. t. 736.

Ballota lanata. Linn. ! *Spec.* 815.

Panzeria lanata. Pers. *Syn.* 2. 126.

Panzeria tomentosa. Mærch. *Meth.*

Hab. in Sibiricæ siccis sterilibus inter fluvia Kan et Jebagan, ad fluvia Katunja et Tschuja, et prope Slimon Ledebour ! in Dauria Patrin ! (*h. s. sp. comm. a cl. Prescott et Bunge.*)

Caules e basi crassa perenni sublignosa erecti, duri, simplices vel rarius ramosi, vix pedales, tetragoni, uti petioli, calyces, bracteæ, corollarum labium superius, et sæpius foliorum pagina inferior, lana alba densa demum subfloccosa vestiti. Folia omnia petiolata, laciniis nunc angustis fere ad basin limbi attingentibus, nunc latiusculis ad medium tantum attingentibus, apice sinubusque obtusis ; floralia conformia, minora. Verticillastri densi, multiflori, approximati. Bracteæ subulatae, spinosæ, calyce breviores. Calyx semipollicaris, tubuloso-campanulatus, dentibus lanceolato-subulatis, spinescentibus. Corolla ultrapollicaris, flavescens, galea oblonga, integra, labii lobi laterales oblongi, erecti, medius latior, brevis, patens.

The characters, whether derived from the foliage or parts of the fructification, are the same in this and the *L. sibiricus*, although the size and colour of the flowers, and the wool with which the plant is covered, give it so different an appearance.

Species non satis notæ.

9. *L. JAVANICUS* (Blume Bijdr. 828).

Hab. in Javæ occidentalis umbrosis montanis *Blume*.

“*L. foliis ovato-oblongis inæqualiter dentatis, calycibus strigoso-puberulis dentibus calycinis acuminatis patentibus, labio corollæ superiore concavo emarginato, lacinia intermedia labii inferioris rotundato-crenulata, lateribus acutiusculis.*”—*Blume l. c.*

10. *L. OBLONGIFOLIUS* (Blume Bijdr. 828).

Hab. in Java ad ripas fluvii Tjapus in montosis Salak *Blume*.

“*L. foliis oblongis acuminatis inæqualiter denticulatis, calycibus pilosissimis, dentibus calycinis subulatis, lacinia intermedia corollæ labii inferioris rotundato-crenulata, lateralibus acutis.*”—*Blume l. c.*

Species e genere excludendæ.

L. AFRICANUS *Mill.* = *Leonotis Leonurus*.

L. ERIOSTACHYS *Turcz.* = *Marrubium eriostachys*.

L. GALEOBDOLON *Willd.* = *Lamium Galeobdolon*.

L. GLOBOSUS *Mæench.* = *Leonotis nepetæfolia*.

L. GRANDIFLORUS *Mæench.* = *Leonotis Leonurus*.

L. INDICUS *Linn.* = *Leucas linifolia*.

L. MARRUBIASTRUM *Burm.* = *Leucas Zeylanica*.

L. NEPETÆFOLIUS *Mill.* = *Leonotis nepetæfolia*.

L. PARVIFLORUS *Mæench.* = *Leucas aspera*?

L. SUPINUS *Willd.* = *Marrubium incisum*.

LXXVII. GALEOPSIS.

Galeopsis. *Linn. Gen.*

Tetrahit. *Mæench. Meth.*

Calyx tubuloso-campanulatus, sub 5-nervius, ore subæquali, dentibus 5 subæqualibus vel superioribus longioribus, apice subspinescentibus. Corolla tubo exserto recto intus nudo, fauce dilatata, limbo bilabiato, labio superiore ovato integro fornicato, inferiore patente trifido, lobis lateralibus ovatis, medio obcordato vel subbifido, palato supra ad sinus loborum dente elevato aucto. Stamina 4, adscendentia, didynama, inferioribus longioribus. Antheræ biloculares, loculis oppositis, transverse bivalvatim dehiscentibus, valvula interiore rotundata margine ciliata, exteriori majore nuda. Stylus apice subæqualiter bifidus, lobis subulatis, apice stigmatiferis.—Herbæ annuæ, divaricato-ramosæ, erectæ, vel basi decumbentes. Folia floralia caulinis subcon-

formia. Verticillastri pluri- multiflori distincti. Flores rubri vel ochroleuci, vel e binis coloribus variegati.

An European genus containing but few species, readily distinguished from all other *Labiata* by the structure of the anthers.

1. *G. OCHROLEUCA* (Lam. Dict. 2. 600), caule pubescente, foliis oblongis vel oblongo-lanceolatis utrinque molliter villosis, calycibus glanduloso-villosis.

G. ochroleuca. Reichb. Icon. Bot. Eur. 1. 40. t. 46.

G. villosa. Sm. Fl. Brit. 2. 629. Eng. Bot. 33. t. 2353.

G. grandiflora. Gmel. Syst. 905.

G. prostrata. Vill. Fl. Delph. 2. 388.

G. dubia. Leers.

Tetrahit. longiflorum. Mœnch. Meth. 395.

G. segetum. Reichb. ex Steud. Nom. Bot. 351.

Hab. in Europa media : in Anglia ! Gallia ! et Germania ! in Gallia media perfrequens, in Floris Italicis, Græcis, et Caucasicis non occurrit. (v. v. et h. s. sp.)

Caulis basi decumbens, divaricato-ramosus. Rami, folia, et calyces pilis molli- bus apice sæpe glandulosis vestita. Folia latiora, crassiora, molliora quam in *G. Ladano*, venis subtus prominentibus supra depressis. Verticillastri numerosiores, 10-30-flori. Calyces parum longiores, dentibus brevibus vix spinosis. Corolla ultrapollicaris, ochroleuca, tubo longo tenui.

2. *G. LADANUM* (Linn. ! Spec. 810), caule glabro vel pubescente, foliis oblongo-lanceolatis utrinque breviter tomentoso-pubescentibus, calycibus adpresse pubescentibus pilis eglandulosis.

G. Ladanum. Sm. Eng. Bot. 13. t. 884.

G. canescens. Schult. Obs. 108 ? fide Reichb. Fl. Germ. Exc. 322.

G. angustifolia. Ehrh. ex char. in Reichb. Fl. Germ. Exc. 322.

Tetrahit Ladanum. Mœnch. Meth. 394.

β parviflora.

G. parviflora. Lam. Dict. 2. 600.

G. intermedia. Vill. Fl. Delph. 2. 387. t. 9. Reichb. Icon. Bot. Eur. 1. 40. t. 46.

G. latifolia. Hoffm. Fl. Germ. 4. 8. ex DC. Fl. Fr. 3. 544.

γ spinosa, calycis dentibus longioribus spinosis.

G. angustifolia. Hoffm. Fl. Germ. 4. 8. ex DC. Fl. Fr. 3. 543.

Hab. in Europa omni : a Scotia Hooker, Suecia Wahlenberg, et Petropoli Sobolewski, ad Hispaniam ! Italiam Tenore, Rossiam australem Bieberstein, et Caucasum C. A. Meyer. (v. v. et h. s. sp.)

Caulis erectus divaricato-ramosus, circiter pedalis, ramis glabris vel pubescentibus, sæpe purpurascens. Folia 1-1½-pollicaria, distantia, petiolata, in locis siccis angustiora, integriora, in umbrosis humidisve oblonga, remote serrato-crenata, nervosa, glabra vel pubescentia, floralia subconformia, minora, calyces excedentia. Verticillastri 1-3, ad apices ramorum glomerati, 6-10-flori, uno alterove paucifloro, sæpe remoto. Bractæ paucae, lineares vel lanceolatae, acutissimæ, subpungentes, calycem æquantes. Calyces sessiles, pilis adpressis subsericeis pubescentes, nervis 5 prominentibus subangulati, ore truncato breviter ciliato, dentibus subpatentibus acutissimis pungentibus tubo sæpius brevioribus, in var. *γ* longioribus. Corolla rubra vel rosea, tubo fauceque sæpius flavo-maculato, interdum vix calyce dimidio longior, sæpius duplo triplove longior, extus pubescens ; tubus basi attenuatus, superne dilatatus, vix incurvus.

Under the varieties β and γ are included a number of states that approach in some measure either the *G. ochroleuca*, or the *G. Tetrahit*, without having any distinct characters by which they can be separated from *G. Ladanum*. As these intermediate specimens are very variable, and much less common than either of the three species in their normal state, although they grow amongst them, I should be inclined to consider many of them as hybrids, more especially as the stamina and style are sufficiently exposed to admit of that supposition.

3. *G. TETRAHIT* (Linn. ! Spec. 810), caule pilis rigidis sæpius hirtis sub axillis tumido, foliis ovatis, calycibus glabris hirsutisve.

Tetrahit nodosum. Mœnch. Meth. 395.

α *parviflora*, corollis calyce $1\frac{1}{2}$ -3-plo longioribus.

G. Tetrahit. Hook. Fl. Lond. v. 5. t. 191. Reichb. Icon. Bot. Eur. 9. 28. t. 877. Sm. Eng. Bot. 3. t. 207.

G. bifida. Bonning. ex Lej. et Court. Fl. Belg. 241. Reichb. Fl. Germ. Exc. 323.

G. acuminata. Reichb. Fl. Germ. Exc. 323.

β *pubescens*, caulibus vix hirtis.

G. pubescens. Besser ! Prim. Fl. Gal. 2. 27. Reichb. Icon. Bot. Eur. 1. 40. et 41. t. 47 et 48.

G. Walterina. Schlecht. ! Fl. Berol.

γ *grandiflora*, corollis calyce 3-4-plo longioribus.

G. versicolor. Curt. Fl. Lond. v. 2. ic. Reichb. Icon. Bot. Eur. 1. 47. t. 57. Sm. Eng. Bot. 10. t. 669.

G. cannabina. Willd. Spec. 393.

G. speciosa. Mill. Dict. n. 3.

Hab. in Europa tota et Asia media ad vias, in dumetis, sylvis, &c., a Scotia Hooker, Lapponia Wahlenberg, et Petropoli Sobolewski, ad Hispaniam ! Italiam Tenore, Caucasum C. A. Meyer, Bieberstein, et Sibiriam Altaicam Ledebour, ubi tamen rarior ; in Germania omni vulgarissima est ; occurrit etiam in America boreali ex seminibus Europæis. (*v. v. et h. s. sp.*)

Caulis erectus, 1-3-pedalis, tetragonus, laxè ramosus. Rami sub geniculis parum inflati (in siccitate sæpius contracti) plus minusve præsertim in parte superiore sæpius pubescentia brevi adpresso-reflexi, et pilis longis rigidis patentibus vel subreflexis induti, nonnullis etiam apice glandulosis interdum interjectis, nunc pubescentia nunc pilis patentibus fere omnino deficientibus. Folia 1-3-pollicaria, acuminata, basi rotundata, supra pilis sparsis brevibus hispidula, venis subtus adpresse pubescentibus vel pilis nonnullis longis ciliatis. Bractæ lanceolato-subulatae, calycem subæquantes. Verticillastri 6-30-flori, distincti vel supremi approximati. Calyces ovato-campanulati, sessiles, 10-nervi, nervis 5 eminentioribus, basi fere glabri, ore truncato ciliato, nervo transversali prominente. Dentes e basi sublanceolato subulato-spinosi, subpatentes, tubo sæpius longiores. Corolla nunc dentibus calycinis brevior, nunc calyce quadruplo longior, purpurascens, flavescens, vel coloribus binis maculata, tubus amplior quam in *G. Ladano* et *ochroleuco*. Labium superius sæpius brevissime denticulatum, nonnunquam integrum. Achenia magna, subrotundo-compressa, tenuissime subreticulata.

I have much observed this plant in Germany, where it is very common, and am fully persuaded, with Fries,* that there is but one species. The size and colour

* "Corollæ magnitudine inter *Labiatas* parum fido. Præcipue *Galeopsides*, hoc respectu variant. Vidi *G. Tetrahit* floribus *G. versicoloris*, et versa vice, et plene persuasum meo has plantas mere varietates credas, recedentes circiter ut *Viola tricolor* et *arvensis*."—Fries Nov. Fl. Succ. ed. 2. 193.

of the flowers are remarkably uncertain, and afford every shade of difference from one extreme to the other; and the difference in pubescence between the *G. pubescens* and *Tetrahit* of German authors is but one of degree. It is very seldom that a pubescent specimen is to be found absolutely without the long rigid hairs; and, on the other hand, where these are most abundant, they are almost always accompanied, especially in the upper part of the plant, and on two opposite sides of the stem, by a small quantity of the pubescence. The large variegated-flowered specimens (*G. versicolor* of authors) have usually less of this pubescence, and more of the hairs, than the smaller red-flowered ones.

Species e genere excludendæ.

- G. FUSCA* Mœnch. = *Stachys alpina*.
G. GALEOBDOLO Linn. = *Lamium Galeobdolon*.
G. HIRSUTA All. = *Stachys hirta*.
G. HISPANICA Mill. = *Stachys hirta*?
G. HISPIDA Thunb. = *Stachys Thunbergii*.
G. MACULOSA Lam. = *Plectranthus punctatus*.
G. ORIENTALIS Mill. = *Stachys spinulosa*.

LXXVIII. STACHYS.

Stachys et Betonica. Linn. et Auct.
Zietenia. Gleditsch. Pers. et Auct.
Eriostomum, Tetrahitum et Trixago. Hoffm. et Link.

Calyx tubuloso-campanulatus, 5- vel 10-nervius, ore æquali vel obliquo 5-dentato, dentibus æqualibus vel superioribus majoribus, vel rarius 3 superioribus in labium superius basi coalitis. Corolla tubo cylindrico æquali incluso vel exserto, intus transversim piloso-annulato vel nudo, superne sæpe incurvo, fauce non dilatata; limbus bilabiatus, labio superiore erecto vel subpatente, sæpius subfornicato integro vel vix emarginato, rarius elongato subplano emarginato-bifido, labio inferiore sæpius longiore patente trilobo, lacinia media maxima integra vel emarginata. Stamina 4, adscendentia, didynama, inferioribus longioribus, defloratis sæpe ad latera faucis dejectis. Filamenta nuda. Antheræ approximatae, biloculares, loculis distinctis parallelis divergentibus vel divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, obtusa nec truncata.—Herbæ, suffrutices vel fruticuli. Verticillastri 2- multi-flori, sæpius in racemis terminalibus subsimplicibus dispositi.

This numerous genus is spread over nearly the whole world excepting Australia. It differs from the allied genera of *Marrubium* and *Sideritis* by the exserted stamens, and the equal subulate lobes of the style, from *Sphacele* by the form of the corolla, and from *Ballota* by that of the calyx. Between *Stachys* and *Leonurus* the characters are less definite, and perhaps the form of the achenia is the most tangible; although, in some species of the section *Betonica*, there is an approach

to the truncate achenia of *Leonurus*. Yet to any one who has ever seen a *Stachys* or a *Leonurus*, certain differences, very difficult to express, in the form of the corolla and the general habit, are so marked, that no botanist appears to have ever confounded the two, excepting Loureiro, who had nothing but the Linnæan technical characters to guide him. With regard to the circumscription of the genus, I had at first adopted the common separation of *Betonica* from *Stachys*, and characterised it by the parallel-celled anthers; but the presence of that character in many species of the section *Ambleia* obliged me to abandon it, and the exsert tube of the corolla could only include a portion of the *Betonicæ*, which would become united to all the *Calostachya*, with some species of *Stachyotypus*; and in every other character, as well as in habit, the two genera appear to me inseparable, unless, indeed, as many genera be formed as I have enumerated sections, and the presence of bracteæ, inflorescence, and colour of flower, be admitted as generic characters. The laterally reflexed stamina are not peculiar to *Stachys*, nor universal in the genus.

CONSPECTUS SPECIERUM.

SECT. I. ALOPECUROS. *Verticillastri multiflori, in spicam aggregati. Bracteæ exteriores calycem æquantes. Corollæ flavescentes, tubo calycem æquante.*

Species unica 1. S. ALOPECUROS.

SECT. II. BETONICA. *Verticillastri fasciculato-multiflori, in spicam interruptam aggregati. Bracteæ exteriores calycem æquantes. Corollæ purpurascens, tubo exserto. Antherarum loculi paralleli.*

Folia floralia infima cordato-ovata.

Corolla ultra pollicaris 5. S. GRANDIFLORA.

Corolla vix semipollicaris 2. S. DENSIFLORA.

Folia floralia infima lanceolata.

Folia subtus viridia vel pallida.

Calyces semipollicares et ultra 4. S. LONGIFOLIA.

Calyces vix 3 lin. longi 3. S. BETONICA.

Folia subtus nivea 6. S. DISCOLOR.

SECT. III. ERIOSTACHYS. *Herbæ biennes vel perennes, molliter villosæ vel lanatæ. Bracteæ, saltem exteriores, calycem subæquantes, vel vix eo dimidio breviores. Verticillastri multiflori vel rarissime pauciflori.*

Herbæ semipedales vel vix pedales.

Verticillastri vix sexflori 10. S. SWAINSONI.

Verticillastri plusquam decemflori.

Herba molliter villosa vel pilis longis lanata.

Folia caulina oblonga, floralia latissime
cordata, integerrima 7. S. HERACLEA.

Folia omnia lato-ovata, crenata 8. S. MOLLISSIMA.

Folia albo-tomentosa. Racemi glabriusculi 9. S. PUMILA.

Herbæ pedales et ultra, plerumque 2-3-pedales.

Verticillastri biflori 11. S. ZUCCARINII.

Verticillastri multiflori.

Caules et folia lana alba dense vestita.

Folia basi angustata vel rotundato-cordata,
vix crenulata.

Folia densissime lanata. Calyces vix
pungentes 12. S. LANATA.

Folia breviter albo-lanata. Calyces
pungentissimi 13. S. ITALICA.

Folia basi plerumque cordata 14. S. GERMANICA.

Caules pilis mollibus laxis villosi. Folia supra
vel utrinque viridia.

Folia omnia et bracteæ apice aristato-
mucronata 17. S. SETIFERA.

Folia mutica.

Bracteæ numerosæ, calyces æquantes.

Folia supra viridia, subtus canes-
centi-lanata 16. S. SERICEA.

Folia utrinque viridia 15. S. ALPINA.

Bracteæ paucae, calycibus breviores.

Folia crassiuscula, cano-tomentosa 18. S. VESTITA.

Folia tenuia, viridia.

Corollæ tubus calyce brevior 19. S. MELISSÆFOLIA.

Corollæ tubus exsertus. 20. S. SPLENDENS.

SECT. IV. CALOSTACHYS. *Herbæ perennes. Verticillastri sex-
flori. Bracteæ subnullæ. Corollæ rubro-coccineæ, tubus longe exsertus.*

Caules molliter villosi 21. S. COCCINEA.

Caules ad angulos obverse aculeato-hispidi.

Calyces et folia glabra vel pilis paucis hispida.

Dentes calycini tubo multoties breviores 22. S. CILIATA.

Dentes calycini tubo subæquilongi 23. S. THUNBERGII.

Calyces et folia villosa.

Folia obtusa, velutino-lanata 25. S. CHAMISSONIS.

Folia acuta, piloso-hispida 24. S. BORAGINOIDES.

Species non satis notæ : 26. S. RIEDERI; 27. S. HIRSUTA.

SECT. V. STACHYOTYPUS. *Herbæ annuæ vel perennes, piloso-
hispidæ vel glabratae, rarius lanatae. Verticillastri 2-6-flori, rarissime
multiflori. Bracteæ minutæ. Corollæ rubræ, purpurascentes vel
subroseo-albæ, nec ochroleucæ.*

§ 1. GENUINÆ. *Caules erecti, elati, angulis sæpius pilis longis patentibus
obversive ciliatis, rarius glabri. Folia ovato- vel oblongo-lanceolata, rarius ample
ovata. Verticillastri 6-10-flori. Corollæ majusculæ, tubo nonnunquam exserto.*

Corollæ tubus exsertus, calyce sæpius dimidio longior.

Folia ovata, longe petiolata 29. S. SYLVATICA.

Folia ovato-oblonga, breviter petiolata 28. S. MEXICANA.

Corollæ tubus dentes calycinos vix excedens.

Folia rugosa, villosa. Calyces et rhachis villosi.

Verticillastri racemosi vel interrupte spicati 30. S. PALUSTRIS.

Verticillastri in spica breve tenui aggregati 31. S. BAICALENSIS.

Folia vix rugosa, glabra vel sparse hispida. Caules
et calyces glabri vel pilis longis rigidis ci-
liato-hispidi.

Folia ovato-lanceolata, basi subcordata 32. S. ASPERA.

Folia oblongo-lanceolata, basi rotundata vel
angustata.

Calyces vix 2 lin. longi 33. S. HYSSOPIFOLIA.

Calyces 4-5 lin. longi 34. S. CHINENSIS.

§ 2. RUDERALES. *Herbæ sæpius perennes, erecti vel adscendentes, rarius procumbentes, hispide villosæ vel lanatæ, rarius glabræ. Verticillastri 6- rarius sub-10-flori. Corollæ majusculæ (cum labio inferiore semipollicares), tubo semper incluso.*

Folia sessilia.

Planta erecta, elata (Vid. § 1. GENUINÆ).

Planta procumbens vel humilis.

Planta albo-lanata, paucifolia . . . 46. S. CANDIDA.

Planta glabra vel villosa, foliosa.

Folia inferiora basi angustata . . . 75. S. ARENARIA.

Folia basi cordata.

Planta villosa. Folia rugosissima . . . 45. S. BRACHIATA.

Planta glabra. Folia vix rugosa . . . 47. S. HUMIFUSA.

Folia saltem inferiora petiolata.

Corollæ tubus exsertus, vel folia ovato- vel oblongo-lanceolata (Vid. § 1. GENUINÆ).

Corollæ tubus dentes calycinos non excedens. Folia rotundo-ovata vel ovali-oblonga.

Folia omnia basi rotundata, cuneata vel angustata.

Caulis basi albo-lanatus.

Caulis humilis. Planta tota lanata . . . 46. S. CANDIDA.

Caulis elatus, apice viridis . . . 35. S. ALBICAULIS.

Caulis basi viridis, glaber vel villosus-hispidus.

Calyx 7-8 lin. longus, ample campanulatus . . . 43. S. ARABICA.

Calyx 3-4 lin. longus.

Caules et folia glabra, vel pilis longis mollibus subadpressis villosa . . . 73. S. ARENARIA.

Caules et folia villosus-hispida.

Calyx fructifer basi attenuatus (*Americanæ*).

Caulis 1-3-pedalis. Folia parce hispida . . . 38. S. GRANDIDENTATA.

Caulis 3-8-pollicaris. Folia rugosissima villosissima . . . 37. S. AJUGOIDES.

Calyx fructifer basi inflatus (*Indica*) . . . 36. S. OBLONGIFOLIA.

Folia inferiora basi cordata.

Folia villosus-lanata, albida . . . 40. S. BRIDGESII.

Folia tomentosus-canescens vel glabra . . . 42. S. NEPETIFOLIA.

Folia viridia, villosa.

Folia lato-ovata vel rotundata.

Folia inferiora longiuscule petiolata. Planta humilis (*Europæa*) . . . 41. S. CIRCINNATA.

Folia omnia breviter petiolata, bullato-rugosissima. Planta elata (*Americana*) . . . 44. S. BULLATA.

Folia ovalia vel ovali-oblonga (*Americana*) . . . 39. S. MACRÆI.

§ 3. OLIGANTHÆ. *Herbæ annuæ, rarius perennes, debiles, basi procumbentes. Verticillastri 2-4, rarius sub-6-flori.*

Folia ovata vel ovato-lanceolata.

Folia omnia subsessilia.

Planta glabra . . . 47. S. HUMIFUSA.

Planta villosa.

Folia floralia calycibus subbreviora. Corolla calyce duplo longior . . . 49. S. SUBSESSILIS.

Folia floralia calyces valde obliquos superantia. Corolla minima . . . 50. S. LYALLII.

Folia inferiora longiuscule petiolata.

Corolla calyce subtriplo longior. Verticillastri omnes biflori.

Folia pauci-crenata basi rotundata vel vix cordata

52. S. CORSICA.

Folia crenata, omnia basi cordata

51. S. ROTUNDIFOLIA.

Corolla calyce vix duplo longior. Verticillastri plerumque 4-6-flori.

Folia rigida, omnia basi cordata

48. S. ÆTHIOPICA.

Folia tenuia, superiora basi truncata vel vix cordata

53. S. SERRULATA.

Folia linearia.

Folia inferiora incisa

75. S. ANGUSTIFOLIA.

Folia omnia integerrima

76. S. HYSSOPOIDES.

§ 4. AGRESTES. *Herbæ annuæ, debiles. Verticillastri 6- rarius 10-15-flori. Corollæ parvæ, calyces breves breviter superantes.*

Folia sessilia.

Planta glabra

47. S. HUMIFUSA.

Planta villosa

45. S. BRACHIATA.

Folia inferiora petiolata.

Verticillastri 10-20-flori

60. S. GRAHAMI.

Verticillastri sub-6-flori.

Calyx molliter rufo-villosus

54. S. ERIANTHA.

Calyx glaber vel hispido-villosus.

Corolla vix 2-2½ lin. longa.

Calyx basi attenuatus, dentibus tubo suo brevioribus

57. S. TRUNCATA.

Calyx fructifer basi subinflatus, dentibus tubo suo sublongioribus.

Calyx fructifer 3 lin. longus

55. S. ARVENSIS.

Calyx fructifer vix 1½ lin. longus

56. S. AGRARIA.

Corolla 3-4 lin. longa.

Dentes calycini tubum æquantes

61. S. DRUMMONDII.

Dentes calycini tubo breviores.

Calyx floriger 3 lin. longus

58. S. PERUVIANA.

Calyx floriger 2 lin. longus

59. S. KEERLII.

Species non satis notæ : 62. S. BOGOTENSIS ; 63. S. DEBILIS ; 64. S. ELLIPTICA.

SECT. VI. OLISIA. *Herbæ annuæ vel perennes, glabræ vel pilosæ, nec lanatæ. Folia ovata vel ovato-oblonga. Verticillastri sub-6-flori. Bractæ minutæ. Calyces sæpius subspinescentes. Corollæ ochroleucæ.*

Corollæ labium superius emarginato-bifidum

65. S. HIRTA.

Corollæ labium superius subintegrum.

Calyx ample campanulatus, 6 lin. longus.

Calyx bilabiatus, labio superiore breviter tridentato

70. S. MENTHÆFOLIA.

Calyx subæqualiter 5-dentatus

69. S. SPINULOSA.

Calyx tubuloso- vel breviter campanulatus, 2-4 lin. longus.

Herba annua. Corolla intus exannulata

66. S. ANNUA.

Herbæ perennes. Corollæ tubus intus annulatus.

Calyces molliter cano-villosi.

Rami breves adscendentes vel erecti.

Verticillastri approximati. Folia

floralia calyce breviora

68. S. MARITIMA.

Rami decumbentes, elongati. Verticillastri distantes. Folia floralia calyces plerumque superantia

67. S. PUBESCENS.

Calyces glabri vel piloso-hispidi.

- Folia oblonga, crenata 72. S. SIDERITIS.
Folia oblongo-linearia, subintegerrima 71. S. SUBCRENATA.

SECT. VII. CHAMÆSIDERITIS. *Herbæ perennes, glabræ vel pilosæ, nec lanatæ. Folia oblonga vel linearia. Verticillastri 2-6-flori. Bracteæ minutæ. Calyces subspinescentes. Corollæ ochroleucæ vel purpurascentes.*

Corollæ ochroleucæ.

- Folia oblonga, crenata 72. S. RECTA.
Folia oblongo-linearia, subintegerrima 71. S. SUBCRENATA.

Corollæ rubræ vel purpurascentes.

- Folia oblongo-linearia. Verticillastri 6-flori 73. S. ARENARIA.
Folia anguste linearia. Verticillastri biflori 75. S. ANGUSTIFOLIA.

- Species non satis nota 74. S. CONGESTA.

SECT. VIII. AMBLEIA. *Suffrutices tomentosi vel glabrati nec pilosi. Bracteæ parvæ. Calyces tomentosi vel lanati, dentibus mollibus muticis.*

Verticillastri plerumque 6-10-flori, rarius 4-5-flori.

Calyces inflato-campanulati.

- Folia et calyces canescentia vel candida 92. S. INFLATA.
Folia viridia. Calyces dense aureo-lanati 93. S. INTEGRIFOLIA.

Calyces tubuloso-campanulati.

Verticillastri numerosi, approximati.

- Folia basi amplexicaulia 88. S. PALÆSTINA.
Folia basi angustata 86. S. BURCHELLII.

Verticillastri distantes.

Calyces densissime albo-lanati.

- Calyces erecti 90. S. LAMARCKII.
Calyces fructiferi nutantes 89. S. NUTANS.

Calyces albo-tomentosi.

Folia oblongo-lanceolata, subcrenata. Corollæ calyce duplo longiores.

- Calyces pedicellati 91. S. JUGALIS.
Calyces sessiles 81. S. RUGOSA.

Folia oblongo-linearia, integerrima. Corollæ dentes calycinis vix excedentes 80. S. ROSMARINIFOLIA.

Verticillastri plerumque 2-flori, rarius 3-4-flori.

Folia crenata, undulato-crispa.

- Folia utrinque subviridia 82. S. DENTICULATA.
Folia utrinque albo-tomentosa 83. S. CUNEATA.

Folia integerrima.

Folia ovata vel oblonga.

- Folia et calyces niveo-tomentosa 85. S. NIVEA.
Folia et calyces floccoso-tomentosa 84. S. PAUCIFLORA.

Folia linearia vel lineari-spathulata.

Folia sericeo-tomentosa.

Folia linearia, floralia flores superantia 79. S. LINEARIS.

Folia lineari-spathulata, suprema floribus breviora 78. S. SPATHULATA.

Folia viridia vix tomentosa.

Rami tomentosi 77. S. CÆRULEA.

Tota planta glaberrima 76. S. HYSSOPOIDES.

- Species non satis nota 87. S. ÆGYPTIACA.

SECT. IX. ZIETENIA. *Suffrutices pilis mollibus albis lanati vel glabrati. Bracteæ parvæ vel paucæ. Calyces lanati vel glabri, dentibus subulatis sæpissime spinosis.*

Dentes calycini corollas superantes.

Folia integerrima. Dentes calycini molles . 94. S. LAVANDULÆFOLIA.

Folia crenata. Dentes calycini rigidi, spinosi . 95. S. MUCRONATA.

Dentes calycini corollis breviores.

Caules trichotomi, ramosissimi.

Planta pilis adpressis sericea . 96. S. SPINOSA.

Planta glabra, glutinosa . 97. S. GLUTINOSA.

Caules basi ramosi, ramis simplicibus vel parum ramosis.

Folia subglabra . 98. S. FRUTICULOSA.

Folia molliter villosa vel lanata.

Caules elati, subnudi . 11. S. ZUCCARINII.

Caules humiles, foliosi . 10. S. SWAINSONI.

Species non satis notæ quoad sectionem dubiæ, 99-102.

SECTIO I. ALOPECUROS.

Betonicæ sp. Linn. et Auct.

Herba perennis, villosa, viridis. Verticillastri fasciculato-multiflori, in spicam subinterruptam approximati. Bracteæ exteriores calycem subæquantes. Corollæ flavescentes, tubo incluso. Antherarum loculi paralleli.

1. S. ALOPECUROS, perennis, adscendens, villosa, foliis petiolatis lato-ovatis obtusis crenatis basi lato-cordatis, floralibus infimis sessilibus subconformibus latioribus supremis bracteisque lato-ovatis acutis calycem subæquantibus, verticillastri multiflori in spicam crassam oblongam vel cylindricam basi subinterruptam approximatis, corollis calyce ample campanulato dimidio longioribus.

Sideritis Alopecuros. Scop. Fl. Carn. ed. 2. n. 711. t. 28.

Betonica Alopecuros. Linn.! Spec. 811. Jacq. Fl. Austr. 1. 50. t. 78. Reichb. Icon. Bot. Eur. 8. 4. t. 719.

Betonica lutea. Mill. Dict. n. 7.

Hab. in Europæ mediæ et australiore montibus: in Pyrenæis! Cebennis! Alpibus Helveticis! Salisburgensibus et Austriacis Reichenbach, in montibus Galloprovinciæ! Pedemontii, et Italiæ, usque ad regnum Neapolitanum Tenore, in monte Parnasso Sibthorp! (v. v. et h. s. sp.)

Caules complures, 1-1½-pedales, uti folia pilis mollibus villosi. Folia rugosa; floralia infima verticillastos subamplectantia. Spica pollicem diametro, 1-4 pollices longa. Verticillastri 20-30-flori. Calyx semipollicaris, fructifer inflato-campanulatus, membranaceus, venosus, apice villosus, dentibus lanceolato-subulatis acutissimis subspinosus. Corolla ochroleuca, extus pubescens, tubo vix exserto intus oblique annulato, labio superiore emarginato, inferiore parum longiore patente, lobis lateralibus ovatis. Stamina didynama. Antherarum loculi paralleli.

SECTIO II. BETONICA.

Betonicæ sp. Linn. et Auct.

Herbæ perennes, piloso-pubescentes vel villosæ. Verticillastri fasciculato-multiflori, in spicam subinterruptam approximati. Bracteæ saltem exteriores calycem æquantes. Corollæ purpurascens, rarius ochroleucæ, tubo sæpius exserto. Antherarum loculi subparalleli.

2. *S. DENSIFLORA*, perennis, erecta, hirsuta, foliis petiolatis ovato-oblongis obtusis crenatis basi cordatis, floralibus infimis cordato-ovatis breviter petiolatis, superioribus bracteæformibus bracteisque ovato-lanceolatis mucronatis calycem æquantibus, verticillastris in spicam densam oblongam approximatis vel infimo remoto, corollis calyce duplo longioribus.

Betonica Monnieri. Gou. Illustr. 36.

Betonica hirsuta. Linn. Mant. 248. Reichb. Icon. Bot. Eur. 8. 5. t. 714.

Betonica danica. Mill. ! Dict. n. 2.

Betonica incana. Ait. ! Hort. Kew. 2. 293. Bot. Mag. 47. t. 2125. Reichb. Icon. Bot. Eur. 8. 5. t. 713.

Betonica macrostachys. Wender. in Bot. Zeit. 1826. 1. 353. ?

Betonica rubicunda. Wender. Ind. Sem. Hort. Marb. ?

Hab. in Europæ australioris subalpinis : in Hispania *Pavon !* Pyrenæis *Gouan*, alpibus Helveticis ! Appenninis *Willdenow*, regno Neapolitano *Tenore*, Hungaria *Lang !* et in Caucaso *C. A. Meyer. (h. s. sp.)*

Caules erecti, $1\frac{1}{2}$ -pedales, subsimplices, crassi, uti folia pilis mollibus plus minusve villosi. Folia 2-3 pollices longa, $1-1\frac{1}{2}$ lata, rugosa ; floralia infima constanter ovata et vix sessilia. Spica densa, crassa, $1\frac{1}{2}$ -2 poll. longa, pollicem diametro. Calyx campanulatus basi glaber apice plus minusve hirsutus, dentibus spinosis superioribus parum majoribus. Corolla extus villosa, tubo incurvo, intus exannulato, sed lineis pilorum longitudinaliter pubescente ; labia patentia, subæqualia.

3. *S. BETONICA*, herbacea, erecta, pilosiuscula, foliis infimis longe petiolatis ovato-oblongis obtusis crenatis basi cordatis superioribus remotis floralibusque infimis sessilibus oblongo-lanceolatis acutis dentatis supremis linearibus integerrimis calycem æquantibus, verticillastris multifloris omnibus in spicam oblongam subinterruptam approximatis vel infimo distincto, bracteis ovatis mucronatis calycem æquantibus, corollis calyce duplo longioribus.

Betonica officinalis. Linn. ! Spec. 810. Hook. Fl. Lond. v. 2. ic. Sm. Eng. Bot. 16. t. 1142. Fl. Dan. t. 726. Reichb. Icon. Bot. Eur. 8. 4. t. 710.

Betonica hirta. Leyss. Reichb. Icon. Bot. Eur. 8. 4. t. 711.

Betonica legitima. Link. Handb. 476.

Betonica stricta. Ait. Hort. Kew. 2. 299. Reichb. Icon. Bot. Eur. 8. 5. t. 712.

Betonica alpina. Mill. ! Dict. n. 3.

*Betonica foliosa. Presl. Fl. Sicul. xxxvii. ?**

Betonica affinis. Wender. in Bot. Zeit. 1826. 1. 353.

Betonica serotina. Host ! Fl. Austr. 2.

β major.

Hab. in Europæ totius et Asiæ Rossicæ pascuis sylvaticis : ab Anglia ! Suecia *Fries !* et Petropoli *Sobolewski*, ad Lusitaniam *Brotero*, Atlantem *Desfontaines*, Hispaniam *Pavon !* Siciliam *Gussone*, Italiam

* “ *B. spica interrupta basi foliosa, bracteis calyceque hirsutis, corolla pubescente, galea emarginata.* ” — *Presl. l. c.*

australem Tenore, Græciam Sibthorp! et Caucasum C. A. Meyer. (v. v. et h. s. sp.)

A *S. densiflora* differt caule tenuiore, petiolis longioribus, foliis remotis dimidio minoribus, superioribus floralibusque constanter anguste lanceolatis, spica sæpius depauperata, vix semipollicem diametro, subinterrupta. Cæterum statura et hirsutie valde variabilis. Calyx et corolla omnino *S. densifloræ*. Var. β spica elongata et crassiore, et habitu *S. densifloræ* proxima, sed folia superiora lanceolata nec ovata.

4. *S. LONGIFOLIA*, perennis, erecta, villosa, foliis petiolatis oblongo-lanceolatis obtusis crenatis basi profunde cordatis, floralibus infimis conformibus sessilibus supremis bracteæformibus bracteisque ovato-lanceolatis acuminatis calyce brevioribus, verticillastris multifloris infimis remotis supremis in spicam cylindricam approximatis, corollis calyce tubuloso duplo longioribus.

Betonica orientalis. Linn. Spec. 811.

Hab. in Caucaso! (h. s. sp. comm. a cl. Prescott.)

Caules elati, crassi, dense villosi. Folia 4-6 pollices longa, semipollicem vel vix pollicem lata, basi parum latiora, et auriculis subrotundis crenatis profunde hastato-cordata, rugosa, venis valde prominentibus. Spica laxiuscula, basi interrupta, semipedalis. Calyces semipollicem longi, pubescentia brevi villosi, ore truncato ciliato, nervis 5 prominentibus, dentibus subulatis rigidis strictis. Corolla rubro-purpurea, extus glabra, tubus subrectus, intus exannulatus. Faux subæqualis. Labia patentia, subæqualia.

5. *S. GRANDIFLORA*, perennis, erecta, villosa, foliis petiolatis lato-ovatis obtusis crenatis basi late cordatis, floralibus sessilibus amplexicaulibus subconformibus gradatim minoribus supremis subbracteæformibus, verticillastris multifloris distinctis infimis remotis, bracteis ovato-lanceolatis acutis calyce longioribus, corollis calyce tubuloso-campanulato triplo longioribus, fauce dilatata.

Betonica grandiflora. Willd. Spec. Pl. 3. 96. Bot. Mag. 19. t. 700. Reichb. Icon. Bot. Eur. 8. 6. t. 715.

Betonica orientalis. Thuill. Fl. Par. 293.

Hab. in Sibiria ad fluvium Tereck Willdenow, in Caucaso C. A. Meyer, Fischer! (h. s. sp. comm. a cl. Lindley.)

Caules complures, pedales, pilis subreflexis villosi. Folia inferiora longe petiolata, omnia rugosa, utrinque villosa; floralia verticillastos amplectentia. Verticillastri 10-20-flori, pauci, omnes distincti, infimi remoti, supremi parum distantes. Bracteæ exteriores sæpe foliis floralibus subconformes, interiores angustiores integerrimæ. Calyx 6-7 lin. longus, basi glaber, apice purpurascens, villosus, dentes subulati, rigidi, subspinosi. Corolla pulchra, violacea, 12-14 lin. longa, glabra, tubo intus exannulato, extra calycem parum incurvo, superne in faucem amplam dilatato. Labia patentia. Stamina subdidynama. Antherarum loculi demum divaricati.

6. *S. DISCOLOR*, perennis, adscendens, villosa, foliis petiolatis oblongo-lanceolatis obtusis profunde crenatis supra rugosis hirtis subtus albo-lanatis, floralibus infimis conformibus sessilibus, supremis bracteis-que lanceolatis calycem æquantibus, verticillastris multifloris subdistinctis paucis, corollis calyce tubuloso-campanulato plus duplo longioribus, fauce dilatata.

Betonica nivea. Stev. ! in Mem. Soc. Nat. Cur. Mosq. 3. 266.

Hab. in Caucasi orientalis lapidosis, Steven! α flore roseo circa thermas Dschiwit, β flore ochroleuco circa pagum Chinalug Bieberstein. (v. s. sp. in herb. Hooker.)

Planta elegantissima, magnitudine et floribus *B. grandifloræ*. Caulis pedalis, obtuse quadrangulus, albo-villosus, superne tomentosus. Folia æqualiter grosse crenata, quoad formam proxima ad *B. hirsutæ* folia accedentia, supra viridia, subtus tomento niveo mollissimo vestita, radicalia et caulina inferiora longe petiolata, basi inæqualiter cordata; floralia summa in petiolum angustata. Bracteæ villis incumben-
tibus mollibus albis sublanatæ. Calyx lanuginoso-villosus, dentibus lanceolatis, acutis, inermibus. Corolla magna, villosa, tubo curvulo calyce paullo longiore, galea lata, rotundata, integra, labio galea paullo longiore trilobo, lacinia intermedia lata emarginata.

SECTIO III. ERIOSTACHYS.

Eriostachydis sp. *Reichb. Fl. Germ. Exc.* 319.

Eriostomum. *Hoffm. et Link Fl. Port.*

Herbæ biennes vel perennes, molliter villosæ vel lanatæ. Verticillastri multiflori. Bracteæ saltem exteriores calycem æquantes, vel vix eo dimidio breviores.

7. *S. HERACLEA* (All. Fl. Ped. 1. 31. t. 84. f. 1), herbacea, erecta, pilis longissimis lanata, foliis petiolatis oblongis obtusis crenatis basi subcordatis, floralibus latissime ovatis integerrimis basi late cordatis calyces subsuperantibus, verticillastri multifloris distinctis, bracteis ovatis oblongisve exterioribus calyces æquantibus, calycis lanati dentibus ovatis acutissimis subspinosus.

Sideritis heraclea. Col. Ecphr. 1. t. 131. ex All.

Stachys intermedia. Ten. Fl. Neap. Prod. xxxvi. ex DC. non Ait.

S. barbata. Lapeyr! Hist. Abr. Pl. Pyr. 336.

S. phlomoides. Willd. Enum. Hort. Berol. Suppl. 41.

β lutea, floribus luteis.

S. obliqua. Waldst. et Kit. Ic. Pl. Hung. Rar. 2. 142. t. 134.

S. cretica. Forsk.! Fl. Const. 28. non Linn.

S. orientalis. Vahl! Symb. 2. 64. Sibth. et Sm. Fl. Gr. 6. 48. t. 560. non Linn.

Hab. in Europæ Mediterraneæ siccis incultis: in Hispania *Pavon!* Pyrenæis orientalibus! Gallia centrali prope Rhodéz *Requien!* et in montibus Lozère *Prost!* in Galloprovincia *De Candolle*, Pedemontio *Allioni*, Romania *Columna*, regno Neapolitano *Tenore*, Sicilia *Gussone*; *β* in Croatia *Waldstein et Kitaibel*, Dalmatia *Visiani!* prope Byzantium *Forsköhl!* (*h. s. sp.*)

Caules e basi crassa perenni plures, erecti, vix pedales, subsimplices. Folia caulina 2-5 pollices longa, vix ultra pollicem lata, basi sæpe inæqualiter cordata. Racemus simplex, semipedalis. Bracteæ exteriores acutæ, medio dilatatæ, basi angustatæ. Calyx *S. germanicæ*, sed sæpius minus lanatus. Corolla calyce subduplo longior, forma *S. germanicæ*, purpurea, vel in var. *β*, quæ omnibus aliis characteribus varietati *α* simillima, lutea.

8. *S. MOLLISSIMA* (Willd. Hort. Berol. 60. t. 60), humilis, erecta, molliter villosa, foliis petiolatis lato-ovatis crenatis basi cordatis rugosis utrinque subviridibus villosissimis, verticillastri multifloris, bracteis linearibus calycem æquantibus, calycis campanulati villosi dentibus acutis subspinosus, corollis extus pubescentibus calyce dimidio longioribus.

Hab. in ins. Corfu *Willdenow*, *H. F. Talbot!* (*h. s. sp. comm. a cl. Talbot.*)

Herba vix semipedalis. Folia fere *S. alpinæ*, at minora; floralia calyces breviter superantia. Calyces 5-6 lin. longi, ample campanulati, dentibus omnibus fere æqualibus lanceolatis. Species statura et calycibus distinctissima.

9. *S. ? PUMILA* (Russ. ! Nat. Hist. Alep. 2. 255. t. 10), perennis vel suffruticosa, humilis, foliis subradicalibus petiolatis ovatis obtusis basi cordatis rugosis utrinque cano-tomentosis, verticillastris paucis multifloris, bracteis exterioribus calyces subæquantibus, calycibus glabriusculis, dentibus lanceolato-subulatis tubo subæqualibus.

Hab. in Syria prope Aleppo *Russell!* (v. s. sp. in herb. Banks.)

Caules e basi dura sublignosa brevissimi. Folia radicalia fere *Salviæ pomiferæ*. Rami floriferi 2-4-pollicares, verticillastos 2-4 ferentes. Folia floralia rotundata, rugosa, calyces æquantia. Verticillastri 15-20-flori. Bracteæ oblongo-lineares. Calyces tubuloso-campanulati. Corollas non vidi. An revera hujus generis?

10. *S. SWAINSONI*, herbacea? perennis, piloso-lanata, basi procumbens, ramosissima, foliis petiolatis ovatis obtusis crenatis basi rotundatis rugosis mollissimis, verticillastris 2-10-floris, bracteis calyce dimidio brevioribus rarius minutis, calycibus campanulatis molliter villosis, dentibus lanceolatis acutissimis subspinosus, corollis calyce duplo longioribus.

Prasium hirsutum. Poir. Dict. 5. 611. (fide exempl. in herb. Vahl. sub nomine *Prasii minoris*.)

Hab. in Græcia ad montem Parnassum *Swainson!* in Ithaca *P. B. Webb!* (h. s. sp. comm. a cl. Webb, et v. s. sp. in herb. Sibthorp et Hooker.)

Species quoad affinitates dubia, et inter *Zietenias*, *Stachyotipos*, et *Eriostachydes*, fere media. Caules vix semipedales. Rami, petioli, et folia pilis longis albidis subsericeis mollissime vestita. Folia semipollicaria vel parum longiora. Racemi ramorum primariorum 3-4-pollicares, densi; verticillastris sub-10-floris; bracteis calycis dimidium fere æquantibus. In ramulis lateralibus et nonnunquam in omnibus verticillastri biflori, bracteis subnullis. Calyces subsessiles, 4-5-lineares, dentibus tubum corollæ subæquantibus. Corollæ extus parum villosæ, labio inferiore superiori duplo longiore. Annulus tubi subobliquus.

11. *S. ZUCCARINII*, herbacea? perennis, pilis adpressis sericeo-lanata, ramis elongatis erectis subramosis, foliis paucis linearibus integerrimis, verticillastris bifloris, bracteis calyce brevioribus, calycibus tubuloso-campanulatis, dentibus spinosis tubum corollæ superantibus.

Hab. in Græcia ad Acrocorintham *Zuccarini!* (v. s. sp. in herb. Martius.)

Rami 2-3-pedales, subnudi, uti folia, calyces, et corollæ pilis albis sericeis longis adpressis lanati. Folia vix pollicaria, mollia, acutiuscula; floralia parva, sessilia, lanceolata. Racemus simplex, pauciflorus. Bracteæ lanceolatae, calyce breviores. Calyces sessiles, 5 lin. longi.

12. *S. LANATA* (Jacq. Ic. Rar. 1. 11. t. 107), densissime sericeo-lanata, foliis oblongo-ellipticis utrinque angustatis vix crenulatis rugosis, floralibus minoribus supremis verticillastro brevioribus, verticillastris multifloris supremis in spicam approximatis, bracteis lineari-lanceolatis calycem subæquantibus, calycis subincurvi dentibus vix inæqualibus acutis muticis intus lanatis, corollis extus lanatis, tubo incluso.

Eriostomum lanatum. Hoffm. Nachtr. 1. 60.

Hab. in Tauriæ campis apricis copiose *Bieberstein*, *Durville*, et in locis herbidis siccis subalpinis totius Caucasi *Bieberstein*, *C. A. Meyer*, etiam in monte Beschtai *C. A. Meyer*. (h. s. sp. comm. a b. Klustine.)

Caules pedales vel rarius sesquipedales, uti folia et calyces lana densissima vestiti. Folia crassissima, mollissima, minute crenulata. Verticillastri plus 30-flori. Calyces *S. germanicæ* sed densius lanati, dentibus latioribus patentibus. Corolla minor quam in *S. germanica*.

June 1834.

4 A

13. *S. ITALICA* (Mill. Dict. n. 3), herbacea, erecta, cano-tomentosa, foliis subsessilibus vel breviter petiolatis oblongo-lanceolatis angustis obtusis crenulatis basi angustatis vel rarius subcordatis rugosis molliter albo-tomentosis, floralibus ovato-lanceolatis integerrimis verticillastro sublongioribus, verticillastris multifloris distinctis supremis approximatis, bracteis lineari-lanceolatis calycem æquantibus, calycibus subincurvis, dentibus acutis spinosis intus densissime lanatis, corollis extus lanatis tubo incluso.

S. salviæfolia. *Ten. ! Fl. Nap.* 2. 23. t. 53. *Syll.* 291.

Eriostomum salviæfolium. *Presl. Fl. Sic.* xxxvii.

β *pungens*, humilior, folia pauciora, verticillastri pauci ad apices caulis subspicati.

S. pungens. *Russ. ! Nat. Hist. Alep.*

S. salviæfolia. *Pl. Dalm. Exs. Unionis Itinerariæ.*

Sideritis hirsuta. *Sieb. Pl. Cret. Exs.*

Hab. in Europa Mediterranea : in Italia ad Pæstum et in Etruria *Requien !* prope Parmam *Reichenbach*, β ad Zara Dalmatiæ *Visiani !* in Syria prope Aleppo *Russell !* (*h. s. sp.*)

A *S. germanica* differt statura humiliore, foliis angustis basi rarissime cordatis, more *Salviæ* rugosis et potius tomentosis quam lanatis. Racemi tenuiores.

14. *S. GERMANICA* (Linn. ! Sp. 812), herbacea, elata, lana alba laxa vestita, foliis caulinis petiolatis ovatis vel ovato-lanceolatis obtusis basi plerisque cordatis crenatis, floralibus inferioribus sessilibus subamplexicaulibus crenatis supremis lanceolatis acutis integerrimis verticillastro sublongioribus, omnibus albo-lanatis, verticillastris multifloris distinctis racemosis supremis approximatis, bracteis lineari-lanceolatis calycem æquantibus, calycibus subincurvis dentibus acutis subspinosis intus lanatis supremis majoribus, corollis extus lanatis tubo incluso.

S. germanica. *Jacq. Fl. Austr.* 4. 10. t. 319. *Sm. Eng. Bot.* 12. t. 829. *Bot. Reg.* 15. t. 1289. *Reichb. Icon. Bot. Eur.* 10. 18. t. 950. *Fl. Dan.* t. 684.

Eriostomum germanicum. *Hoffm. et Link. Fl. Port.*

S. tomentosa. *Gat. Fl. Mont.* 107.

S. cretica. *Linn. Spec.* 812. ? *Sibth. et Sm. ! Fl. Gr.* 6. 47. t. 558.

S. spectabilis. *Choisy ! in DC. Pl. Rar. Hort. Gen.* 1. 27.

S. dasyantha. *Rafin. Préc. des Découv.* 39.

S. biennis. *Roth. Reichb. Icon. Bot. Eur.* 10. 17. t. 949.

S. polystachya. *Ten. Fl. Nap.* 2. 23. t. 53. *Syll.* 297.

Eriostomum polystachyum. *Presl. Fl. Sicul.* xxxvii.

Eriostomum lusitanicum. *Hoffm. et Link. Port.*

S. lusitanica. *Steud. Nom. Bot.* 806.

S. pannonica. *Lang ! Pl. Exs.*

S. argentea. *Tausch. in Bot. Zeit.* 1831. 1. 217.

S. alba. *Mill. Dict. n.* 4. ?

S. heterophylla. *Mærch. ex Steud. Nom. Bot.* 806.

S. cinerea, *elongata*, *excelsa*, *intermedia*, *orientalis*, *sibirica*, *verbascifolia*, &c. *Hortul.*

Hab. in Europæ, Asiæ mediæ, et Africæ borealis siccis aridis lapidosis : in Anglia *Sir J. E. Smith*, Gallia ! Germania ! Hispania ! Lusitania *Brotero*, circa Tingidem *Salzmann !* et in imperio Maroccano *Schousboe !* in Sicilia *Gussone !* Italia superiore ! et regno Neapolitano *Tenore !* in Syria prope Aleppo *Russell*, et Hierosolymum *Clarke !* in Creta *Sieber !* Bulgaria *Durville*, Tauria *Bieberstein*, Caucaso *Pallas !* (*v. v. et h. s. sp.*)

Species quoad villositatem et magnitudinem florum valde variabilis. Caules,

petioli, foliorum pagina inferior, et præsertim calyces et bracteæ, lana alba laxa mollissima nunc subsericea vestiti. Caules erecti, firmi, 1-4-pedales. Folia basi sæpissime cordata, supra molliter rugosa, hirta vel sæpius lanata, subtus constanter lanata, crassa, mollia; floralia angustiora, inferiora verticillastro subduplo longiora, superiora gradatim minora, suprema vix calyces excedentia. Verticillastri 15-20-flori et ultra, inferiores remoti, supremi approximati, racemum simplicem formantes. Bracteæ lineares, exteriores calyces æquantes. Calyces oblique campanulati, lanati, dentibus inæqualibus ovatis acutissimis spinosis. Corolla roseo-purpurea vel albida, magnitudine varians, sæpius calyce subduplo longior, extus dense lanatus, nunc vix calycem æquans et pubescens. Tubus dentibus calycinis brevior, intus oblique annulatus. Labia patentia, superius integerrimum, inferius parum longius, sæpius maculatum, lobis lateralibus parvis oblongis. Achenia ovato-triquetra, subcompressa, nigra, lævia. In exemplaribus hortensibus folia sæpe supra vix albo-lanata, sed crassa, rugosissima, nec ut in *S. alpina* tenuia. Cæterum flores numerosiores, verticillastri magis approximati, et dentes calycis fructiferi angustiores, quam in *S. alpina*.

15. *S. ALPINA* (Linn. ! Sp. 812), herbacea, elata, caule erecto piloso sublanato, foliis petiolatis ovatis serrato-crenatis basi cordatis utrinque viridibus villosis, floralibus angustioribus gradatim minoribus acutis serratis, verticillastris omnibus remotis multifloris, bracteis linearibus calycem subæquantibus, calycis pilosiusculi dentibus lanceolato-ovatis acutis spinosis, corollis extus lanatis calyce subduplo longioribus.

S. alpina. Lapeyr. *Fl. Pyr.* 1. 14. t. 8.

Eriostomum alpinum. Hoffm. et Link. *Fl. Port.*

β *intermedia*, major, foliis rugosioribus subtus interdum sublanatis.

S. intermedia. Ait. *Hort. Kew.* 2. 201.

S. cretica. Linn. *Spec.* 812. *fide descriptionis.*

S. orientalis. Linn. *Spec.* 813. *fide exempl. Tournefortiani, in herb. Banks. servati.*

S. sibirica. Link. *Enum. Hort. Berol.* 2. 109. Sw. *Brit. Fl. Gard.* 1. t. 100.

S. urticæfolia. Tausch. in *Bot. Zeit.* 1831. 1. 216.

S. curviflora. Tausch. in *l. c.*

S. fusca. Mæench. ?

Hab. in Europæ umbrosis præsertim montosis: in Pyrenæis! Gallia centrali! Alpibus Helveticis! in montibus Italiæ superioris! et Lucaniæ *Tenore*, in Germania *Reichenbach*; β in Caucaso *C. A. Meyer*, et Sibiria *Link*, &c. (*h. s. sp.*)

Planta, præsertim in hortis, valde variabilis, sed constanter a *S. germanica* foliis utrinque viridibus, verticillastris plerumque paucioribus remotioribus, et racemo multo minus lanato, distinguenda. Caules et petioli nunc pilis longis mollibus vestiti, nunc breviter tantum et laxè villosi. Folia utrinque villosa, sed viridia, tenuia, vix rugosa, nunc obtusa, sæpius acutiuscula. Racemi sæpe purpurascunt. Verticillastri 15-20-flori. Calyces late campanulati, multo minus lanati quam in *S. germanica*. Corolla *S. germanicæ*, obscure purpurea vel rubrofusca.

16. *S. SERICEA* (Wall. Pl. As. Rar. 1. 64), herbacea, elata, caule erecto pilosissimo, foliis petiolatis ovatis vel ovato-oblongis obtusiusculis crenatis basi cordatis utrinque villosis supra viridibus subtus pallidis vel incanis junioribus sericeo-lanatis, verticillastris omnibus distantibus 10-15-floris, bracteis linearibus calycem subæquantibus, calycis lanati dentibus ovato-lanceolatis acutissimis spinosis.

S. persica. Gmel. *Jun. ex Meyer Enum. Pl. Cauc.-Casp.* 94.

Hab. in Asiæ centralis montibus: in Caucasi montium altiorum Talüsç sylvis *C. A. Meyer*, in montibus Gilan Persiæ *Gmelin*! in

montibus Napaliæ et Kamaon Wallich! in Mussooree et toto jugo Himalayano frequens Royle! (*h. s. sp. e Mus. Angl. Ind., et v. s. sp. in herb. Royle et Pallas nunc Lambert.*)

Vix a *S. alpina* distinguenda, villosior tamen, flores in verticillastro pauciores. Racemi elongati, multiflori, pilis longis laxè lanati. Folia rugosiuscula, subtus in exemplaribus sylvestribus albo-lanata, in cultis viridula. Calyces obliqui, nec vere bilabiati.

17. *S. SETIFERA* (Meyer! Enum. Pl. Cauc.-Casp. 94), herbacea, elata, caule erecto piloso sublanato, foliis breviter petiolatis oblongis vel oblongo-lanceolatis basi rotundatis, floralibus gradatim minoribus omnibus utrinque viridibus rugosis molliter villosis apice aristato-mucronatis, verticillastris multifloris distantibus, bracteis lanceolatis aristatis, calycis villosi dentibus lanceolatis acutis spinosis, corollis extus pubescentibus calyces parum excedentibus.

Hab. in Caucasi montium Talüsches locis subhumidis prope pagum Swant C. A. Meyer! (*h. s. sp. comm. a cl. Meyer.*)

Affinis *S. sericeæ*, sed foliis subsessilibus angustis aristatis, et corollis glabrioribus, satis distincta videtur.

18. *S. VESTITA*, herbacea, erecta, molliter albo-villosa, foliis subsessilibus ovato-lanceolatis obtusis crenulatis basi cordatis crassis rugosis subtus dense albo-lanatis, floralibus lanceolatis acutis reflexis supremis calyces vix excedentibus, verticillastris sub-10-floris omnibus distantibus, bracteis linearibus calyce dimidio brevioribus, calycis villosi dentibus lanceolatis acutis subspinosis, corollis extus pubescentibus calyce subduplo longioribus.

Hab. in Indiæ orientalis montibus Napalensibus Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *S. oblongifoliæ*, a qua differt foliis crassis lanatis et bracteis saltem in verticillastris superioribus calyces dimidium æquantibus. Caules erecti, subsimplices, pedales vel demum fere sesquipedales. Folia 1-1½-pollicaria, supra subviridia, rugosissima, subtus lana alba densissima, sed multo brevior quam in *S. germanica*, vestita. Racemi elongati, stricti. Calyx fere 4 lin. longus. Corollæ tubus vix exsertus, intus prope basin oblique annulatus; labia patentia, inferius superiore dimidio longius.

19. *S. MELISSÆFOLIA*, herbacea, ramis divaricatis pilis obversis mollibus pubescentibus, foliis petiolatis lato-ovatis obtusis crenatis rugosis utrinque viridibus glabriusculis vel pubescentibus, floralibus superioribus calyce brevioribus, verticillastris sub-10-floris remotiusculis vel supremis approximatis, bracteis linearibus calyce dimidio brevioribus, calycibus ovato-campanulatis pubescentibus dentibus acutis non spinosis, corollis extus pubescentibus calyce duplo longioribus.

Hab. in Indiæ orientalis montibus Napalensibus Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *S. splendenti*, sed glabrior, et flores pauciores duplo minores. Folia remota, 1½-2 poll. longa, plus pollice lata, tenuia. Racemi subramosi. Calyces fructiferi vix 3 lin. longi, late campanulati, dentibus lato-lanceolatis ovatisve patentibus. Corolla purpurascens, tubo tenui incurvo intus annulato; labia patentia.

20. *S. SPLENDENS* (Wall.! Pl. As. Rar. 1. 64), herbacea, elata, caule erecto piloso, foliis petiolatis ovatis serrato-crenatis basi cordatis rugosis villosis utrinque viridibus, floralibus conformibus sessilibus

gradatim minoribus, verticillastris sub-10-floris remotis, bracteis linearibus calyce brevioribus, calycis pubescentis dentibus obtusiusculis muticis inæqualibus, corollis calyce plus duplo longioribus tubo exserto incurvo.

Hab. in Indiæ orientalis montibus Gossain Than *Wallich* ! in montibus Mussooree, et in toto jugo Himalayano frequens *Royle* ! (*h. s. sp. e Mus. Angl. Ind.*)

S. alpinae affinis, sed minus villosa ; flores in verticillastro pauciores. Bracteæ breviores. Calyces pubescentia brevi nec pilis longis villosi, dentibus minime spinosis, et corollæ tubus calyce subdimidio longior.

SECTIO IV. CALOSTACHYS.

Herbæ perennes, glabræ vel villosæ, caulibus sæpe ad angulos obverse pilosis aculeatisve. Verticillastri subsexflori. Bracteæ minutæ. Dentes calycini acutissimi vel subspinescentes. Corollæ coccineæ vel purpureæ, tubo longe exserto. Antherarum loculi divergentes vel divaricati.

21. *S. COCCINEA* (Jacq. Hort. Schœnbr. 3. 18. t. 284), herbacea, erecta, molliter villosa, foliis petiolatis ovato-lanceolatis obtusiusculis crenatis basi cordatis, racemis elongatis, verticillastris sexfloris omnibus distantibus, bracteis subnullis, corollis pubescentibus calyce subtriplo longioribus, tubo longe exserto.

Stachys coccinea. Bot. Mag. 18. t. 666. Andr. Bot. Rep. t. 310.

Hab. in Mexico ! (*h. s. sp. comm. a cl. Graham.*)

Rami obtuse tetragoni, pilis brevibus villosi. Folia 2-pollicaria basi pollicem lata, infima longe petiolata obtuse crenata, rugosa, utrinque villosa ; floralia sessilia, infima conformia, crenaturis submucronatis, suprema calyce vix longiora, oblonga, apice spinoso-mucronata. Calyces subsessiles, 3-4 lin. longi, pubescentes, virides, dentibus lanceolatis spinoso-acuminatis. Corolla pulchra, coccinea, pollicem longa, tubo incurvo calyce duplo longiore, prope basin intus pilis transversim annulato. Labium superius integerrimum subpatens, inferius longius patens, lobis lateralibus ovatis subreflexis, medio lato brevissime emarginato. Stamina subdidynamia. Antheræ subapproximatæ, lobis divaricatis. Styli lobi breves, subulati. Achenia obovoideo-triquetra, subcompressa, lævia vel punctis minutis rugulosa.

22. *S. CILIATA* (Dougl. ! MSS.), herbacea, erecta, subglabra, caulis angulis obverse ciliatis, foliis petiolatis ovatis breviter acuminatis crenatis basi cordatis glabris vel supra pilis raris hispidulis, verticillastris sexfloris supremis subapproximatis, bracteis subnullis, corollis glabriusculis calyce triplo quadruplove longioribus, tubo longe exserto.

Hab. in America boreali-occidentali : ad ripas fluminis Columbiae *Douglas* ! *Scouler* ! (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caulis 3-4-pedalis, parum ramosus, angulis acutis, pilis brevibus rigidis obversis sæpius angulatus, cæterum glaberrimus. Petioli pilis longis ciliati. Folia 2-3-pollicaria vix rugosa, subtus venosissima, nunc glaberrima, nunc supra pilis raris sparsis obsessa ; floralia minora, suprema calyce subbreviora, ovata, membranacea, ciliata. Verticillastri inferiores remoti, supremi subapproximati. Calyx vix 2 lin. longus, campanulatus, glaber, dentibus ovatis subspinoso-acuminatis. Corolla glabriuscula, purpurea, fere pollicem longa, tubo parum incurvo vel subrecto calyce triplo longiore, prope basin intus piloso-annulato ; labium superius suberectum tenuiter pubescens, inferius plus duplo longius patens. Antherarum loculi ante anthesin paralleli, demum subdivaricati.

23. *S. THUNBERGII*, herbacea, erecta? caulis angulis obverse aculeatis, foliis petiolatis ovatis acuminatis crenatis basi cordatis rugosis coriaceis, nervis subtus aculeatis utrinque glabris vel pilis longis hispidis, verticillastris sexfloris distantibus, bracteis subnullis, corollis calyce glaberrimo plus duplo longioribus, tubo longe exserto.

Galeopsis hispida. Thunb. Prod. Fl. Cap.

Hab. in Africa australi: ad Caput Bonæ Spei *Thunberg! Burchell! Ecklon! &c. (h. s. sp. comm. a cl. Lehmann, et v. s. sp. in herb. plur.)*

Planta in speciminibus nonnullis procumbens videtur, in aliis erecta, cæterum *S. boraginoidi* similis. Caules ut in illa, nervi petiolique foliorum tuberculoso-aculeati. Foliorum pagina superior nunc pilis sparsis hispida, nunc, uti tota planta aculeis exceptis, glaberrima, lævis. Folia siccitate supra bullata nigricantia, subtus elevato-reticulata, sæpe rufescentia. Calyces pedicellati, fere semipollicares, læves, dentibus tubo æquilongis, acutis, vix spinescentibus. Corolla *S. ciliatæ*, glabra, rubra.

24. *S. BORAGINOIDES* (Schiede et Deppe in Linnæa 5. 100), herbacea, erecta, caulis angulis obverse aculeatis, foliis petiolatis ovatis acutis crenatis basi cordatis utrinque viridibus piloso-hirsutis et subtus ad nervos aculeatis, verticillastris sexfloris distantibus, bracteis subnullis, calycibus pubescenti-pilosis, corollis calyce subquadruplo longioribus, tubo longe exserto.

Hab. in Mexico! in umbrosis montis Macul-tepec et versus San Andres *Schiede et Deppe. (v. s. sp. in herb. Mus. Reg. Monac.)*

Habitus *S. ciliatæ*. Caulis 3-pedalis, parum ramosus, tetragonus, ad angulos pilis reflexis asperrimus, quibus vetustate detritis basis eorum conica aculeiformis persistit, facies glabra vel pilis paucissimis brevibus pubescens. Folia 1-2-pollicaria, rugosa, pilis sparsis paginæ superioris longis numerosis, inferioris paucis, subtus reticulato-nervosa, nervis fere omnibus pilis caulinis similibus aculeatis. Calyces et corollæ forma et magnitudine *S. coccineæ*. Antherarum loculi divergentes.

25. *S. CHAMISSONIS* (Benth. in Linnæa 6. 80), herbacea, erecta, caulis angulis obverse ciliatis, foliis petiolatis ovatis obtusis crenatis basi cordatis utrinque velutino-lanatis, verticillastris sexfloris distantibus, bracteis subnullis, corollis extus villosis calyce triplo longioribus, tubo longe exserto.

Hab. in California *Chamisso! (v. s. sp. in herb. Chamisso.)*

Affinis *S. ciliatæ*, sed diversa foliis corollisque villosissimis, et calycibus longioribus hispido-pilosissimis.

26. *S. RIEDERI* (Chamisso in Linnæa 6. 570).

Hab. in Kamtchatka *Rieder. (Chamisso.)*

“Habitus gracilescens plantæ in sylvis opacis et humidis crescentis. Caulis 2½-pedes altus, simplicissimus fistulosus, ad angulos pilis subulatis retrorsis albis munitus, internodiis inferioribus 2-2½-pollicaribus, medii caulis 4-5-pollicaribus, summis inflorescentiæ decrescentibus, unico ornatus pseudo-verticillo sexfloro, superiori nodo unifloro, summis foliorum paribus 2 approximatis sterilibus. Folia membranacea internodiis breviora, inferiora breviter distincte petiolata angusta, ex ovata basi oblonga, jam emarcida, superiora latiora simul et breviora evadunt, brevius petiolata, ex ovata basi lanceolata; floralia ovato-subcordata, cum petiolari parte 1¾-poll. longa, ¾-poll. lata, summa decrescentia, omnia acuta, margine scabro obsolete depresso, serrata serraturis obtusis; basi petioloque pilis similibus caulinis ciliata, supera pagina omnino glabra, subtus in nervo tenui et venis obliquis similibus pilorum rudimentis vix conspicua instructa. Flores semipollicares sessiles.

Calyces pilis descriptis horridi, dentes angusti elongato-triangulares, nervo medio crasso excurrente subspinescentes. Corolla rubra? calyce ter longior, bis eum superans; labium superius integrum pilosum.—*S. borraginoidi* quodam modo similis, at minus horrida hirsuta et aspera, a qua foliorum figura differt cæterisque.” —*Cham. l. c.*

27.? *S. HIRSUTA* (Humb. et Kunth. Nov. Gen. et Sp. Am. 2. 308).

Hab. in Mexico: in locis alsis montium inter Actopan et Totonilco (*Humboldt et Bonpland.*)

“*S. caule adscendente hispido, foliis petiolatis ovato-oblongis acutis cordatis utrinque hirsutis, verticillis subsexfloris, galea emarginata.*

“*Herba subsexpollicaris. Caulis adscendens, subramosus, tetragonus, hispidus. Folia petiolata, ovato-oblonga, acuta, cordata, crenata, reticulato-venosa, utrinque hirsuta, subpollicaria; petioli semipollicares, hispidi. Flores pedunculati, verticillati, 9 lin. longi, verticillis subsexfloris distantibus. Calyx tubulosus, quinquefidus 10-striatus, pilosus, laciniis acuminato-subulatis. Corolla coccinea? externe pubescens, tubus cylindræus, calyce duplo longior, limbus bilabiatus, labio superiore ovato-concavo, emarginato, inferiore trifido, lacinia intermedia majore subcrenulata.*” —*Kunth l. c.*

SECTIO V. STACHYOTYPUS.

Stachydotypus. Dumort. Florul. Belg. 45.

Campanistrum et Eriostachyos sp. Reichb. Fl. Germ. Exc. 318.

Trixago et Stachys. Hoffm. et Link. Fl. Port.

Herbæ annuæ vel perennes, piloso-hispidæ vel glabratae, rarius lanatae. Verticillastri plerumque subsexflori, rarius 2-4- vel 10-15-flori. Bracteæ minutæ. Calyces sæpius subspinescentes. Corollæ purpurascens, rubræ vel roseo-albæ, nec ochroleucæ, tubo incluso vel breviter exserto.

§ 1. GENUINÆ. *Caules erecti, elati, angulis sæpius pilis longis patentibus obversisve ciliatis, rarius glabri. Folia ovato- vel oblongo-lanceolata, rarius ample ovata. Verticillastri 6-10-flori. Corollæ majusculæ, tubo nonnunquam exserto.*

28. *S. MEXICANA*, herbacea, erecta, elata, caule pilis rigidis hirsuto, foliis amplis petiolatis ovato-oblongis crenatis basi cordatis utrinque hispidis, floralibus sessilibus flores excedentibus, verticillastris 6-8-floris distantibus, calycis campanulati hispidi dentibus lanceolatis acutis subspinosus, corollis glabriusculis calyce duplo longioribus, tubo exserto.

Hab. in Nova Hispania *Moçino et Sesse!* (v. s. sp. in herb. *Lambert.*)

Affinis *S. sylvaticæ*, sed folia brevius petiolata, angustiora, longiora. Corollæ majores, tubo ampliore. Labium superius emarginatum.

29. *S. SYLVATICA* (Linn.! Sp. 811.), herbacea, erecta, hispida, foliis longe petiolatis ovatis acuminatis serratis basi cordatis, floralibus bractæformibus vix calyce longioribus, verticillastris sub-6-8-floris distantibus, calycis campanulati hispidi dentibus lanceolatis acutis

subspinosis divaricatis, corollis glabriusculis calyce duplo longioribus, tubo exserto.

S. sylvatica. *Sm. Eng. Bot. 6. t. 416.*

S. canariensis. *Jacq. Ic. Rar. 1. 11. t. 108.*

Hab. in Europæ et Asiæ mediæ umbrosis : a Scotia *Hooker*, Suecia *Wahlenberg*, et Petropoli *Sobolewski*, ad Lusitaniam, Hispaniam ! Siciliam *Gussone*, Italiam australem *Tenore*, Byzantium *Sibthorp*, in nemoribus Colchidis *Durville*, Tauria, Caucaso, et monte Beschtau *Bieberstein*, *C. A. Meyer*, &c., et in jugo Altaico *Ledebour*. (v. v. et h. s. sp.)

Herba pluripedalis, ramosa. Rami tetragoni, uti petioli pilis longis patentibus hispidi. Folia ampla, grosse et acute dentata, viridia, utrinque pilis longis sparsis hispida, floralium par infimum subconforme, suprema parva. Verticillastri sæpissime 6-flori, rarius 8-flori. Bractæ minutæ. Calyx 3 lin. longus. Corolla purpurea, 6 lin. longa, tubo incurvo, calyce dimidio longiore ; labia patentia, superius integrum, inferius duplo longius albo-maculatum, lobo medio breviter emarginato. Annulus internus prope basin tubi breviter pilosus. Achenia ovoideo-triquetra, lævia.

30. *S. PALUSTRIS* (Linn. ! Spec. 811), herbacea, erecta, caule pubescente angulis patentim vel subretrorsum pilosis, foliis subsessilibus oblongo- vel ovato-lanceolatis serrato-crenatis basi rotundatis cordatisve rugosis hispidis vel inferioribus glabris, verticillastri 6- vel sub-10-floris distinctis supremis subapproximatis, calycibus campanulatis hispidis, dentibus lanceolatis acutis subspinosis, corollis calyce duplo longioribus.

S. palustris. *Sm. Eng. Bot. 24. t. 1675. Hook. Fl. Lond. v. 2. ic.*

S. segetum. *Hagen. ! et ex Reichb. Fl. Germ. Exc. 319.*

S. affinis. *Bunge ! Enum. Pl. Chin. Bor.*

β *angustifolia*, floribus minoribus, calycibus submuticis.

γ *hybrida*, foliis longius petiolatis, corollis subexsertis.

S. ambigua. *Sm. ! Eng. Bot. 30. t. 2089. Reichb. Icon. Bot. Eur. 3. 20. t. 222.*

Hab. in Europæ omnis et in Asiæ et Americæ borealis humidis, umbrosis, paludibus, ad ripas, &c. : a Scotia ! Suecia *Fries* ! Petropoli *Sobolewski*, ad Lusitaniam *Brotero*, Italiam australem *Tenore*, Byzantium *Sibthorp* ! in Tauria et Caucaso *Bieberstein*, *C. A. Meyer*, China boreali prope Kantai *Bunge* ! in America maxime boreali frequens, ad flumen Columbia oræ occidentalis *Douglas* ! et in omni Canada *Drummond* ! *Douglas* ! &c. (v. v. et h. s. sp.)

Magnitudine varians, nunc vix sesquipedalis, sæpius 2-3-pedalis et ultra. Caules superne semper pubescentes, inferne interdum glabrati. Pili angulorum patentibus, rarius reflexi, vix rigidi. Folia 2-3- vel interdum 4-6-pollicaria, latitudine variabilia, obtusiuscula, utrinque pubescentia vel hispida, inferiora nonnunquam glabrata et vix rugosa, floralia infima caulinis conformia at minora, superiora calyce vix longiora, ovata, acuta, subintegerrima. Racemus 4-8-pollicaris, simplex, constanter villosus. Verticillastri infimi remoti, supremi subcontigui. Bractæ minutæ. Calyces irregulariter sub-10-nervi, dentibus divaricatis. Corolla purpurascens ; tubus calycem subæquans, intus annulo obliquo pilorum brevium notatus ; labium superius erectum truncatum, extus glabrum vel pilis paucis villosum, inferius majus, lobo medio maximo rotundato. Achenia obovoidea, læviuscula. Variat altitudine, foliis latioribus angustioribusve, spica densa vel laxa elongata, hirsutie, dentibus calycinis ovatis lanceolatisve.

31. *S. BAICALENSIS* (Fisch.! in Herb. Lindl. MSS.), herbacea, erecta, caule retrorsum hispido, foliis subsessilibus oblongo-linearibus acutiusculis serratis basi rotundatis hispidis, floralibus calyce vix longioribus, verticillastris sexfloris infimis remotis supremis in spicam densam oblongam approximatis, calycis campanulati hispidi dentibus lanceolatis acutissimis subspinosi, corollis calyce duplo longioribus.

S. angustifolia. *Pall. ! herb.*

Hab. in Dauria *Fischer !* in Sibiria orientali *Pallas !* (v. s. sp. in herb. *Lambert et Lindley.*)

Caulis erectus, subsimplex, 1-1½-pedalis, faciebus glaberrimis, angulis acutis, uti petioli pilis longis obversis ciliatis. Folia bipollicaria angusta, subrugosa, utrinque, præsertim in pagina superiore pilis longis subadpressis hispida; floralia sub spica conformia, in ipsa spica parva acuta. Spica 1-1½-pollicaris, dense hispida, verticillastro infimo sæpius axillari a spica remoto. Calyces hispidissimi. Corolla *S. palustris*, a qua hæc species differt statura humiliore, foliis multo angustioribus, spica brevi tenui.

32. *S. ASPERA* (Mich. Fl. Bor. Amer. 2. 5?*), herbacea, erecta, caule retrorsum hispido rarius nudo, foliis breviter petiolatis ovato-oblongis vel ovato-lanceolatis acutis serratis basi rotundatis glabris vel supra pilis sparsis hispidulis, floralibus lanceolatis acutis calyce longioribus, verticillastris 6-10-floris distantibus, calycis tubuloso-campanulati glabri ciliati dentibus lanceolatis acutis subspinosi divaricatis, corollis calyce subduplo longioribus.

S. arvensis. *Walt. ! Fl. Car. 162. non Linn.*

S. hispida. *Pursh. Fl. Amer. Sept. 2. 407.*

β *glabrata*, caulis angulis subnudis vel omnino glabris.

S. aspera. *Nutt. Gen. 2. 30 ?*

Hab. in Americæ borealis pascuis, ad ripas fluviorum, &c. a Canada! ad Carolinam! β in Carolina *Fraser !* et in Chinæ provincia *Tokeen Reeves !* (h. s. sp.)

Herba erecta, 2-3-pedalis, habitu *S. palustrem* approximans. Caules acute tetragoni, faciebus glaberrimis, angulis petiolis nervisque primariis foliorum pilis longis rigidis obversis hispidis. Folia 3-4-pollicaria, sesquipollicem lata, utrinque viridia, lævia, pilis supra sparsis et raris, cæterum glaberrima, floralia gradatim minora, suprema longe ciliata. Racemus semipedalis, simplex. Verticillastri laxiusculi, omnes distincti. Bracteæ minutissimæ. Calyces sessiles, irregulariter venosi, dentibus et interdum tubi nervis primariis ciliatis, cæterum glaberrimi. Dentes longitudine tubum æquantes. Corolla violacea, glabra. Annulus internus pilosus. Achenia non vidi.

33. *S. HYSSOPIFOLIA* (Mich. Fl. Bor. Amer. 2. 4?†), herbacea, adscendens, glaberrima vel caulibus retrorsum pilosis, foliis subsessilibus oblongo-lanceolatis acutiusculis subserratis basi parum angustatis, floralibus acutissimis calyce sublongioribus, verticillastris subsexfloris distinctis in racemum brevem approximatis, calycis lato-campanulati

* “*S. caulibus erectis retrorsum hispidissimis, foliis subpetiolatis lanceolatis argute serratis, spica verticillis subsexfloris, calycibus rigide spinescentibus.*”—*Nutt. l. c.*

† “*S. glabriuscula gracilis erecta, foliis sessilibus lineari-lanceolatis, rariter subdentatis, verticillis spicæ subquadrifloris.*”—*Mich. l. c.*

glaberrimi dentibus lanceolatis acutissimis subspinosi divaricatis, corollis glabris calyce 2-3-plo longioribus.

S. tenuifolia. Willd. Spec. 3. 100?*

S. palustris. Walt. Fl. Car. 162. non Linn.

Hab. in Americæ Borealis pratis humidis: prope Saint-Louis Drummond! in Carolina Walter! Michaux? (*h. s. sp.*)

Herba perennis. Caules basi procumbentes. Rami adscendentes, 1-1½-pedales, glabri lævesque, exceptis angulis et axillis, quæ plus minusve pilis longis reflexis hispida. Folia 1-2-pollicaria, glaberrima, venosa, nunc sessilia nunc breviter petiolata. Racemi breves, simplices, pauciflori. Bractæ minutæ. Calycis tubus 1½ lin. longus, dentes tubo æquales. Corolla violacea; tubus breviter exsertus; annulus internus pilosus, incompletus, vel evanidus; labium superius erectum, basi angustatum, tubo æquale, inferius parum longius, patens, lobis lateralibus ovatis, medio rotundato breviter emarginato. Achenia non vidi.

34. *S. CHINENSIS* (Bunge! Nov. Gen. et Sp. Pl. Chin. Bor. ined.), herbacea, erecta, elata, glabriuscula, caulis angulis obverse pilosis, foliis subsessilibus oblongo-lanceolatis subserratis supra hispidulis subtus glabris, verticillastris paucis sexfloris, bracteis minutis, calycis elongati campanulati pilosi dentibus lanceolatis acutissimis subspinosi, corollis calyce vix duplo longioribus.

Hab. in China boreali Bunge! (*h. s. sp. comm. a cl. Bunge.*)

Ab affinibus *S. palustri*, *aspera*, et *hyssopifolia*, foliis longis et calycibus magnis primo intuitu distincta. Tota planta viridis, et, exceptis pilis quibusdam longis ad angulos caulis et nervos calycis, et aliis brevibus sparsis in pagina superiore foliorum, tota glabra, lævis. Folia distantia, 3-4-poll. longa, 4-5 lin. lata, basi rotundata, apice obtusiuscula; floralia breviora, lanceolata, acutiora. Calyces sessiles, 5-lin. longi, colorati, dentibus profundis e basi lanceolata acutissimis. Corolla rubra, labium inferius dentes calycinis breviter excedens, extus pilosum, superius duplo longius, lobo medio emarginato, tubus intus transverse annulatus.

§ 2. RUDERALES. *Herbæ sæpius perennes erectæ vel adscendentes, rarius procumbentes, hispida villosæ vel lanatæ, rarius glabræ. Verticillastri 6- rarius sub 10-flori. Corollæ majusculæ (cum labio inferiore semipollicares), tubo semper incluso.*

35. *S. ALBICAULIS* (Lindl.! Bot. Reg. 18. t. 1558), herbacea, erecta, basi albo-lanata, superne subviscido-pubescens, foliis infimis petiolatis superioribus sessilibus omnibus lanceolatis grosse dentatis basi rotundato-cuneatis angustatisve, floralibus calyce brevioribus, verticillastris 6-floris remotis, calycibus ovato-campanulatis viscido-pubescentibus, dentibus lato-lanceolatis acutis subspinosi, corollis glabris calyce duplo longioribus.

Hab. in Andibus Chilensibus Macrae! H. Cuming! (*h. s. sp.*)

Species primo intuitu distinctissima ob caulis partem inferiorem, uti folia inferiora, lana densissima alba floccosa vestitam, racemi pubescentia viridi sæpissime viscosa. Caules erecti, ramosi, 2-3-pedales, obtuse tetragoni. Folia remota, 1-3-pollicaria. Racemus elongatus, subramosus. Calyces leviter 10-nervi, venosi. Corolla violacea, glabra, tubo breviter exserto, supra annulum internum pilosum obliquum, incurvo dilatato. Labium superius breve, dilatatum, subpatens, inferius

* " *S. verticillis 6-floris, foliis lanceolatis simpliciter serratis, glaberrimis.*

" Similis *S. palustri*. Folia tenuissima, quoad substantiam iis *Veronica maritimæ* simillima, ut ovum ovo."—Willd. l. c.

subduplo longius, patens, lobo medio maximo. Achenia magna, ovato-triquetra, subcompressa, nigra, lævia.

36. *S. OBLONGIFOLIA* (Benth. in Wall. Pl. As. Rar. 1. 64), herbacea, erecta vel adscendens, pubescens vel villosa, foliis breviter petiolatis oblongo-lanceolatis acutiusculis serratis basi subcordatis villosis, floralibus calyce longioribus, verticillastris subsexfloris distantibus, calycis tubuloso-campanulati pubescentis dentibus lanceolatis acutissimis vix spinulosis, corollis calyce dimidio longiori.

Hab. in India orientali: in montibus Sillet *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caules elati, basi subglabri, racemis molliter pubescentibus. Folia 1-2-pollicaria, subtus dense villosa vel sublanata. Racemi elongati. Bracteæ minutæ. Dentes calycini angustati, molles. Corolla violacea, tubo incluso subincurvo, labiis breviter exsertis, extus tenuiter pubescentibus, inferiore duplo longiore.

37. *S. AJUGOIDES* (Benth. in Linnæa 6. 80), herbacea, erecta, hirsutissima, foliis petiolatis oblongis obtusis crenatis basi rotundatis cuneatisve rugosis, floralibus conformibus, verticillastris paucis 6-floris remotis, calycibus ovato-campanulatis hispidis, dentibus ovatis acutis subspinosus, corollis glabris calyce duplo longioribus.

Hab. in California *Chamisso! Beechey! Douglas!* (*h. s. sp.*)

Herba nunc 3-4-pollicaris subsimplex, nunc basi ramosus 8-10-pollicaris. Folia crassa, 1-2-pollicaria, uti tota planta pilis longis rigidis hirsutissima. Calyces magnitudine *S. Macraei*, sessiles, crassi, dense hirsutissimi. Corollæ *S. Macraei*.

38. *S. GRANDIDENTATA* (Lindl.! Bot. Reg. 13. t. 1080), herbacea, perennis, erecta, piloso-pubescens, superne hispida, foliis petiolatis oblongo-lanceolatis grosse dentatis omnibus basi rotundato-cuneatis angustatisve, floralibus supremis calyce brevioribus, verticillastris 6-floris remotis, calycibus ovato-campanulatis hispidis, dentibus lanceolatis acutis subspinosus, corollis glabris calyce duplo longioribus.

Hab. in Chili ad Valparaiso *Macrae! Bridges! Mathews!* (*h. s. sp.*)

Caules erecti, nunc vix pedales, sæpius 2-3-pedales. Foliorum forma et inflorescentia *S. albicaulis*, a qua differt caule viridi pubescente vel pilosa, foliis hispidis vel glabriusculis nec lanatis, et racemo pilis longis numerosis hispido.

39. *S. MACRAEI* (Benth. in Linnæa, 6. 78), herbacea, erecta vel adscendens, piloso-hispida, foliis petiolatis ovatis vel ovato-lanceolatis obtusis crenatis inferioribus basi cordatis supremis rotundato-cuneatis, floralibus sessilibus supremis calyce brevioribus, verticillastris 6-floris remotis, calycibus ovato-campanulatis hispidis, dentibus lanceolatis acutis subspinosus, corollis glabris calyce duplo longioribus.

S. Chamissonis. *Hook. et Arn.! Bot. of Beech. Voy. 155. non Benth.*

Hab. in America occidentali: in Chili ad Valparaiso *Macrae! H. Cuming! Brydges! &c.* in California *Beechey!* (*h. s. sp.*)

S. grandidentatæ affinis, sed humilior et minus erecta, pilis numerosioribus rigidioribus. Folia inferiora longe petiolata, limbo 1-1½-pollicari, ½-1-pollicem lato, basi plus minusve cordato, auriculis rotundatis. Racemus *S. grandidentatæ*. Calyx 3-lin., corolla violacea (cum labio inferiore) 6-7 lin. longa. Variat foliis acutis vel apice rotundatis, et hirsutie. Exemplar Beechianum villosioribus inter Chilenses omnino conforme.

40. *S. BRIDGESII*, herbacea, erecta, tota molliter albo-villosa vel lanata, foliis petiolatis ovatis obtusis crenatis basi subcordatis rugosis, floralibus sessilibus supremis calyce subbrevioribus, verticillastris sexfloris remotis, calycibus ovato-campanulatis mollissime villosis, dentibus muticis, corollis calyce duplo longioribus.

Hab. in Chili meridionali *Bridges!* (*h. s. sp. comm. a cl. Lindley.*)

Affinis *S. Macraei*, sed folia minora, crassiora, uti tota planta lana molli canescente, nec pilis rigidiusculis villosa.

41. *S. CIRCINATA* (L'hér. Stirp. 1. 51. t. 26), herbacea, procumbens, hispida, ramis floriferis erectis, foliis petiolatis rotundatis obtusis crenatis basi late cordatis, floralibus minoribus supremis ovatis integerrimis calyce subbrevioribus, verticillastris sexfloris distinctis infimis remotis, calycis campanulati hispidi dentibus ovatis acutis subspinosus, corollis pubescentibus calyce vix duplo longioribus.

S. velutina. Willd. Enum. Hort. Berol. Suppl. 41.

S. latifolia. Ait. Hort. Kew. 2. 303.

Hab. in Hispania australi et Africa boreali: Gibraltariæ *Durand!* in montibus plumbeis Tuneti *Vahl!* inque rupium fissuris Atlantis *Desfontaines!* (*h. s. c. et v. s. sp. in herb. plur.*)

Rami steriles procumbentes, subrepentes, floriferi adscendentes, pilis patentibus dense hispidi. Folia rugosa, omnia utrinque hispida; floralia gradatim minora, suprema bractæformia, ante anthesin decussatim imbricata. Bractæ minutæ. Calyx 4-linearis. Corolla 7-8-linearis, pallide purpurascens vel albida. Annulus internus breviter pilosus.

42. *S. NEPETÆFOLIA* (Desf. Cat. Hort. Par. 58), herbacea, adscendens, canescens, foliis petiolatis ovatis obtusis crenatis basi cordatis rugosis, verticillastris distantibus 6-floris, calycibus tubulosis canescentibus dentibus lanceolatis acutis subspinosus, corollis pubescentibus calyce dimidio longioribus.

Hab. in Hispania? *Pavon!* (*h. s. comm. a cl. Lambert, a Pavonio cum plantis Hispanicis missam, et v. s. c. in herb. Banks, Lindley, &c.*)

Caules folia et calyces tomento brevi canescentia. Folia semipollicaria vel vix pollicaria, fere *Nepetæ Mussini*. Calyces incurvi, 3 lin. longi. Corollæ purpurascens; tubus calycem æquans, incurvus, extus tomentoso-pubescent, intus exanulatus; labia breviter emarginata. Species habitu a genere recedit, sed characteres omnino *Stachydis*.

43. *S. ARABICA* (Hornem. Hort. Hafn. 554), herbacea, erecta, divaricato-ramosa, ramis glabris vel patentim pilosis, foliis petiolatis ovato-lanceolatis acutiusculis serrato-crenatis basi rotundatis cuneatisve glabris vel pubescentibus, floralibus sessilibus ovatis acutis basi cordatis, verticillastris sexfloris remotis, calycibus maximis campanulatis pilosis, dentibus ovatis acutis subspinosus, corollis pubescentibus calyce dimidio longioribus.

Hab. in Arabia? (*h. s. c.*)

Species calycibus maximis 6-8 lineas longis distinctissima. Caulis pars inferior glaber. Racemi et folia floralia piloso-pubescentia vel hispida. Bractæ minutæ. Corolla violacea, tubus subrectus calyce brevior; annulus internus subevanidus; labium superius subplanum emarginatum, inferioris lobi crenulati, medio emarginato. Achenia maxima, lævia.

44. *S. BULLATA*, herbacea, erecta, villosa, foliis breviter petiolatis lato-ovatis grosse crenatis bullato-rugosissimis subtus subcanescentibus utrinque hispido-villosis, floralibus calyce brevioribus, verticillastris sexfloris, calycis turbinato-campanulati hispidi dentibus ovatis acutis subpungentibus, corollis calyce subduplo longioribus.

S. coccinea. Hook. et Arn. ! Bot. of Beech. Voy. 156. non Jacq.

Hab. in California *Beechey ! (v. s. sp. in herb. Hooker.)*

Caules firmi, tetragoni, pilis rigidis dense villosi. Folia $1\frac{1}{2}$ -2-pollicaria, petiolo vix 3-4-lineari, superiora minora subsessilia; floralia sessilia, rotundata, rugosa, bractæformia, vel infima majora caulinis conformia. Racemus terminalis semipedalis, laterales breviores. Verticillastri approximati. Calyces sessiles, 3 lin. longi et totidem lati, basi attenuati, dentes breves lati. Corolla pubescens, tubo incurvo calycem æquante, intus prope basin transversim annulato, labio superiore integro, inferiore eo vix duplo longiore.

45. *S. BRACHIATA* (Boj. MSS.), herbacea, procumbens? tenuiter tomentoso-pubescens, foliis sessilibus oblongo-lanceolatis obtusiusculis dentatis basi rotundatis rugosis, verticillastris subsexfloris remotis, calycis ovato-campanulati pubescentis dentibus ovatis acutissimis subspinosus, corollis parvis extus pubescentibus calyce subduplo longioribus.

Hab. in Madagascaria *Bojer ! Lyall ! (v. s. sp. in herb. Hooker, et Mus. Reg. Monac.)*

Caules procumbentes, duri, sublignosi, ramis in specimine fere pedalibus, obtusis, pilis brevissimis subglandulosis rufescenti-tomentosis. Folia 1-1 $\frac{1}{2}$ -pollicaria, grosse dentata; floralia gradatim minora, omnia calyce longiora. Bractæ minutæ. Corollæ fere *S. Grahami*, vix plus 3 lin. longæ, tubo dentes calycinos æquante, parum incurvo, intus prope basin pilis brevissimis subannulato. Labium superius breve, extus pubescens integrum, inferius plus duplo longius, lobis ovatis, medio lateralibus duplo majore, margine crenulato. Species habitu inter *Oliganthas* et *Ruderales* media, corollis *Agrestibus* affinis.

46.? *S. CANDIDA*, herbacea? procumbens? tota albo-lanata, foliis subsessilibus oblongo-lanceolatis grosse dentatis crenatisve basi angustatis, floralibus calyce subbrevioribus, verticillastris sexfloris remotis, calycibus ovato-campanulatis lanatis, dentibus lanceolatis acutissimis subspinosus, corollis extus lanatis calyce dimidio longioribus.

Hab. in Oriente *Hort. Par.*, in Macedonia *Herb. Lambert ! (v. s. sp. in herb. Lambert, et s. c. ex Hort. Par. in herb. Lindley.)*

Species distinctissima, tota lana densa sordide alba vestita. Rami obtuse tetragoni, ad nodos fere articulati. Folia pauca, parva, $\frac{1}{2}$ -pollicem vel vix pollicem longa, crassa, rugosiuscula, molliter lanata, in exemplare hortensi dentibus paucis grossis notata, in macedonico crenata; floralia obtusa, integerrima. Bractæ minutæ. Corollæ labium inferius vix superiore longius.

The specimen from the Paris garden appears to be altered by cultivation; and Mr. Lambert's Macedonian one is young, so that I have doubts whether they both in fact belong to one species. Should they be different the Macedonian one would retain Mr. Don's manuscript name of *S. macedonica*.

47. *S. HUMIFUSA* (Burch. ! Cat. Geogr. 3794), herbacea, procumbens, glabra, foliis subsessilibus oblongo-lanceolatis basi cordatis, verticillastris subsexfloris, calycibus glabris, dentibus subspinosus, corollis calyce duplo longioribus.

Hab. in Africa australi extratropica *Burchell ! (v. s. sp. in herb. Burchell.)*

Species distinctissima, habitu exemplaribus majoribus *S. æthiopicæ* affinis.

Caules et rami læves, angulati. Folia acutiuscula, subpollicaria, margine late crenulata; floralia infima conformia, superiora integerrima vix calyces æquantia. Flores *S. æthiopica*.

§ 3. OLIGANTHÆ. *Herbæ annuæ, rarius perennes, debiles, basi procumbentes. Verticillastri 2-4- rarius sub-6-flori.*

48. *S. ÆTHIOPICA* (Linn.! Mant. 82), herbacea, villosa, procumbens, foliis petiolatis rigidis ovato-deltoides crenatis basi profunde et late cordatis, floralibus basi angustatis calyce subbrevioribus, verticillastris 2-4-floris racemosis, calycibus campanulatis hispidis, dentibus æqualibus acutis subspinosus, corollis calyce duplo longioribus.

S. æthiopica. Jacq. Obs. Bot. 4. 2. t. 77.

Hab. in Africa australi: ad Caput Bonæ Spei! (*h. s. sp.*)

Rami elongati, ramosi, pilis rigidis subpatentibus plus minusve hispidi. Folia inferiora semipollicaria, superiora minora, omnia supra pilis sparsis dense hispida, subtus venosa venis hispidis, rarius subglabrata; floralia ovato-lanceolata, parva, subintegerrima. Calyces 2 lin. longi, subsessiles, profunde 5-dentati, extus villosi vel pubescentes, intus glabri. Corolla calyce subtriplo longior, extus fere glaber; tubus breviter exsertus subincurvus, intus annulatus; labia patentia, inferius superiore plus duplo longius, lobis lateralibus ovatis, medio maximo, rotundato, emarginato. Planta hirsutie et magnitudine florum valde variabilis.

49. *S. SUBSESSILIS* (Burch.! Cat. Geogr. n. 4326), herbacea, decumbens, caule glabriusculo, foliis subsessilibus ovatis subintegerrimis profunde cordatis margine nervisque piloso-hispidis, floralibus glabriusculis calyce brevioribus, verticillastris bifloris racemosis, calycibus campanulatis hispidis dentibus æqualibus lanceolatis acutissimis subspinosus, corollis glabriusculis tubo breviter exserto.

Hab. in Africa australi *Burchell!* ad Caput Bonæ Spei *Masson!* ad sinum Algoa *Forbes!* (*h. s. sp. e Mus. Soc. Hort. Lond., et comm. a cl. Burchell.*)

Rami teneri, elongati, parum ramosi. Folia vix ultra 2 lin. longa, superiora pauca; floralia calyce dimidio breviora, sessilia, basi rotundata. Racemi basi subramosi. Verticillastri parum distantes. Calyces fructiferi globoso-campanulati, 2 lin. longi, usque ad medium fissi. Corolla calyce duplo longior, labium superius ovatum, inferius eo subduplo longius, lobo medio maximo. Achenia ovoideo-subtriquetra, nigra, sub lente tenuiter rugosula.

50. *S. LYALLII*, herbacea, annua, diffusa, hispida, foliis petiolatis parvis orbiculatis basi rotundatis cordatisve rugosis, floralibus conformibus, verticillastris bifloris, calycibus campanulatis ore obliquo dentibus lanceolatis acutis supremis longioribus, corollis calyce dimidio longioribus.

Hab. in Madagascaria *Lyall!* (*h. s. sp. in herb. Hooker.*)

Herba pusilla, habitu *Veronicæ agrestis*, tota pilis brevibus hispida. Folia vix 4 lin. longa, totidem lata, crenata, utrinque hispida. Calyces secundi, subreflexi, ore valde obliquo, dente supremo maximo. Corolla roseo-alba, forma corollæ *S. corsicæ*, sed multoties minor. Achenia subglobosa, lævia.

51. *S. ROTUNDIFOLIA* (Moç. et Sessé MSS.), herbacea, annua, adscendens, foliis petiolatis ovato-rotundatis crenatis basi cordatis, floralibus conformibus, verticillastris axillaribus bifloris, calycibus campanulatis pilosissimis, dentibus subæqualibus lanceolatis acutis vix spinescentibus, corollis calyce triplo longioribus tubo breviter exserto, labio inferiore maximo.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. Lambert.)

Affinis *S. corsicæ*. Herba tenera. Caulis basi procumbens, adscendens, semipedalis, subsimplex, pilis longis mollibus villosus. Folia remota, longe petiolata, fere *S. arvensis*, sed basi latiora, profundius cordata, suprema parum minora. Calyces subsessiles, demum nutantes, petiolo sæpius breviores. Corolla fere *S. corsicæ*, at major.

52. *S. CORSICA* (Pers. Syn. 2. 36), herbacea, annua, procumbens, pilosa, foliis petiolatis ovatis obtusissimis late crenatis basi rotundatis subcordatisve, floralibus minoribus supremis calyce brevioribus, verticillastris 2-4-floris remotis, calycibus campanulatis hispidis, dentibus subæqualibus lanceolatis acutis subspinescentibus, corollis calyce plus duplo longioribus, tubo breviter exserto, labio inferiore maximo.

S. corsica. *Reichb. Icon. Bot. Eur.* 7. 24. t. 646.

Glechoma grandiflora. *DC. ! Fl. Fr.* 3. 538.

Hab. in Europæ regione Mediterranea: in arvis Corsicæ *Requien!* &c., Sardinia *Müller!* (h. s. sp.)

Herba tenera, habitu *S. arvensi* similis, sed magis diffusa. Folia semipollicaria, crenaturis utrinque 2-3 latissimis notata, suprema multo minora, omnia petiolata, tenera, viridia, pilis longis sparsis hispida; floralia superiora parva, integerrima. Verticillastri sæpissime biflori, rarius subquadriflori. Calyces pedicellati, nutantes, subsecundi, magnitudine calycum *S. arvensis*, sed basi magis attenuati, dentibus acutioribus, maturatione patentibus. Corolla extus pubescens, 7-8 lineas longa, roseo-alba, tubo parum incurvo dentibus calycinis parum longiore, labio superiore tubo æquali emarginato patente, inferiore duplo longiore lato-ovata, lobo medio rotundato vix emarginato, lateralibus parvis ovatis. Annulus internus horizontalis, pilosus. Filamenta basi breviter pilosa. Antherarum loculi divaricati. Achenia ovato-triquetra, subcompressa, nigrescentia, maculis pallidis variolosa.

53. *S. SERRULATA* (Burch. ! Cat. Geogr. n. 5155), herbacea, annua, decumbens, pilosa, foliis petiolatis lato-ovatis acutiusculis basi late cordatis, floralibus supremis sessilibus calyce brevioribus, verticillastris subquadrifloris, calycibus tubuloso-campanulatis hispidis, dentibus subæqualibus lanceolatis acutis subspinosus, corollis calyce subduplo longioribus.

S. arvensis, γ purpurea. *Poir. Dict.* 7. 373. ?

Hab. in Africa australi extratropica *Burchell!* (h. s. sp. comm. a cl. *Burchell*.)

Ab affini *S. arvensi* differt præcipue corollis duplo majoribus. Folia latiora, apice acutiora. Flores pauciores.

§ 4. AGRESTES. *Herbæ annuæ, debiles. Verticillastri 6- rarius 10-15-flori. Corollæ parvæ, calyces breves, parum superantes.*

54. *S. ERIANTHA*, herbacea, annua, prostrata, subreptans, foliis petiolatis ovato-oblongis obtusis crenatis basi truncatis rotundatisve villosulis, floralibus superioribus sessilibus calyce vix longioribus, verticillastris sexfloris, calycibus campanulatis molliter rufo-villosis, dentibus brevibus acutiusculis muticis, corollis calycem parum excedentibus.

Hab. in Mexico *Moçino et Sessé!* (v. s. sp. in herb. Lambert.)

Affinis *S. arvensi*. Folia fere *S. Grahmi*; ab utraque affinibusque distincta

habitu calycibusque. Folia 6-9 lin. longa, subtus subrufescentia, suprema uti calyces molliter villosa. Corolla *S. arvensis*.

55. *S. ARVENSIS* (Linn. ! Sp. 814), herbacea, annua, decumbens, pilosa, foliis petiolatis ovatis obtusis crenatis basi cordatis, floralibus angustioribus supremis basi cuneatis sessilibus calyce subbrevioribus, verticillastris 4-6-floris distantibus, calycibus tubuloso-campanulatis hispidis, dentibus subæqualibus lanceolatis acutis vix spinulosis, corollis calycem vix excedentibus, tubo incluso, labiis abbreviatis.

S. arvensis. Sm. Eng. Bot. 27. t. 1154. Hook. Fl. Lond. v. 2. ic. Fl. Dan. t. 587. Reichb. Icon. Bot. Eur. 10. 24. t. 967.

Glechoma marrubiastrum. Vill. Fl. Dauph. 2. 371.

Cardiaca arvensis. Lam. Fl. Fr. 2. 383.

Trixago arvensis. Hoffm. et Link. Fl. Port.

Trixago cordifolia. Mæench. Meth. 398.

Trixago colorata. Presl. Fl. Sicul. xxxvii.

Stachys brasiliensis. Hortul.

β ? *purpurea* (Poir. Dict. 7. 373), flore majore.

Hab. in Europæ totius, Africæ borealis, et Asiæ mediæ? arvis, et in America tropica e seminibus Europæis verosimiliter allata: in Europa a Scotia! Suecia *Wahlenberg*, et Petropoli *Sobolewski*, ad Hispaniam! Italiam *Tenore*, Siciliam *Gussone*, Dalmatiam *Visiani*! Græciam *Sibthorp*! in ins. Madera *Masson*! et Sanctæ Helenæ *Wallich*! in Brasilia circa Rio Janeiro frequens *A. de St. Hilaire*! *Sello*! *Caley*! &c., in Jamaica *Fludyer*! var. β in Barbaria *Poiret*, et regno Neapolitano ad Posilippo rara *Tenore*. (v. v. et h. s. sp.)

Herba tenera, in siccis aridis suberecta, vix 2-3-pollicaris, in cultis humidioribusque decumbens, elongata, ramosa, 1-2-pedalis. Caules et petioli pilis longis patentibus hispidi. Folia $\frac{1}{2}$ -1-pollicaria, infima subrotunda, caulina omnia basi profunde cordata, utrinque pilis longis sparsis plus minusve hispida; floralia superiora cuneiformia apice acutiuscule crenata, basi integerrima. Calyces 3 lin. longi, sæpius declinati, et parum incurvi, plus minusve pilosi, irregulariter 10-nervii, profunde 5-dentati, dentibus mollibus acutissimis muticis vel spinula brevissima auctis, fructiferi basi subinflati. Corolla extus pilosiuscula; tubus calyce brevior; annulus internus prope basin tubi; labia subæqualia, dentes calycinis parum excedentia. Achenia obovoideo-triquetra, nigra, sub lente punctato-rugosa.

Var. β est forsitan species propria *S. serrulatæ* affinis: an eadem?

56. *S. AGRARIA* (Schiede et Deppe in Linnæa 5. 100), herbacea, annua, suberecta, pilosa, foliis petiolatis ovalibus obtusis crenatis basi cordatis, floralibus angustioribus omnibus calyce longioribus, verticillastris subsexfloris distantibus, calycibus campanulatis pubescentibus, dentibus subæqualibus acutissimis subspinosus, corollis calycem vix excedentibus.

Hab. in Mexico prope Jalapam *Schiede et Deppe*, in provincia Texas ad Rio Brazos *Drummond*! (v. s. sp. in herb. Hooker.)

Affinis *S. arvensi*, sed distincta. Caules erectiores. Calyces minores, magis spinescentes, brevius ciliati, omnes foliis floralibus breviores. Flores dimidio minores quam in *S. arvense*, omnium hujus generis minimi. Corollæ pallide violaceæ.

59. *S. TRUNCATA* (Kunze in Pl. Pöppig. MSS.), herbacea, annua, erecta, pubescens, foliis petiolatis ovatis obtusis crenatis basi rotundatis, floralibus acutis basi cuneatis verticillastro longioribus, verticillastris 4-6-floris distantibus, calycibus lato-campanulatis, dentibus æqualibus

lato-ovatis acutissimis subspinosi tubo multo brevioribus, corollis calycem vix excedentibus, tubo incluso, labiis brevissimis.

Hab. in Chili: prope Valparaiso *Cuming! Bridges! Pöppig.! &c.* (*h. s. sp.*)

Habitu quodammodo *S. arvensis* refert, sed erectior et minus pilosa, et floribus distinctissima. Foliorum inferiorum petiolus semipollicaris, subalatus, limbus ejusdem longitudinis; floralia subsessilia, gradatim angustiora et acutiora. Verticillastri infimi longe remoti, supremi magis approximati. Bracteæ minutissimæ. Pedicelli vix semilineam longi. Calyces 2 lin. longi, totidem lati, virides, tenuiter pubescentes, 10-nervi. Corolla rubella, glabra. Labium superius dentibus calycinis brevius, inferius parum exsertum. Achenia obovoideo-triquetra, nigra, læviuscula.

58. *S. PERUVIANA* (Domb.! in Herb. Smith.), herbacea, annua, decumbens, ramis pilosis, foliis petiolatis ovato-rotundatis obtusis crenatis basi cordatis glabris pilosisve, floralibus sessilibus calyces superantibus, verticillastris sub-6-floris distantibus, calycibus late campanulatis hispidis, dentibus tubo brevioribus latis acutis subspinosi, corollis calycem vix superantibus, labio superiore brevissimo, inferiore triplo longiore.

Hab. in Peruviae uliginosis prope Limam *Dombey! Mathews!* (*v. s. sp. in herb. Smith et Hooker.*)

Statura major quam in *S. arvensi*. Folia latiora glabriora; floralia majora. Calyx amplior. Corolla fere duplo longior, tubo incluso, labio superiore dentibus calycinis subbrevisiore.

59. *S. KEERLII*, herbacea, annua? erecta, villosa, foliis petiolatis ovatis crenatis basi cordatis pilosis superioribus oblongis, floralibus cuneatis angustis reflexis calycibus vix longioribus, racemis elongatis, verticillastris sexfloris calycibus fructiferis campanulatis patentibus, dentibus acutis spinescentibus tubo subbrevisioribus, corollis calyce duplo longioribus, labio superiore brevi, inferiore triplo longiore.

Hab. in Mexico prope Tlalpuxahua *Keerl!* (*h. s. sp. comm. a cl. Martius.*)

Habitus *S. Grahami*, sed pilosior, verticillastri sexflori, et flores majores. Racemus elongatus, gracilis, hispidus. Verticillastri numerosi. Calyces breviter pedicellati, floriferi tubulosi, fructiferi globoso- vel depresso-campanulati. Folia floralia superiora pilis paucis longis rigidis ciliata.

60. *S. GRAHAMI*, herbacea, procumbens? piloso-pubescens, foliis petiolatis ovato-oblongis obtusis crenatis basi subcordatis hispidulis vel demum glabratis, verticillastris 10-15-floris remotis, calycibus globoso-campanulatis glabriusculis, dentibus ovatis acutis subspinosi, corollis parvis glabris calyce subduplo longioribus.

Hab. in Mexico prope Tlalpuxahua *G. J. Graham!* (*h. s. sp. comm. a cl. Graham.*)

Species verticillastris multifloris in hac sectione distinctissima. Racemus elongatus, simplex. Verticillastri inferiores longe remoti, supremi magis approximati. Bracteæ minutissimæ. Calyces breviter pedicellati; tubus lineam longus, vix venosus. Corolla vix 3 lin. longa, fere *S. arvensis*. Labium inferius superiore duplo longius. Stamina labium superius subæquantia. Achenia ovoidea, nigra, lævia.

61. *S. DRUMMONDII*, herbacea, annua, erecta, piloso-hispida,

July 1834.

4 c

foliis petiolatis ovalibus obtusis basi late cordatis rotundatisve, floralibus lanceolatis superioribus calycibus subbrevioribus, verticillastris sexfloris, calycibus campanulatis, dentibus lineari- vel lanceolato-subulatis tubum æquantibus, corollis calyce duplo longioribus, labio superiore brevi, inferiore triplo longiore.

Hab. in Mexico provincia Texas ad Rio Brazos *Drummond*! (*h. s. sp. a cl. Drummond lect.*)

Herba subbipedalis, habitu exemplarum majorum *S. agrariæ*; folia et hirsuties *S. arvensis*, sed statura elatior, erectior; ab utraque calycibus campanulatis, semi-5-fidis et corollis (cum labio inferiore) 4-5 lin. longis, extus villosioribus, distincta.

62. *S. BOGOTENSIS* (Humb. et Kunth. Nov. Gen. et Sp. Am. 2. 309).

Hab. in America æquinociali: juxta Santa Fé de Bogota *Humboldt et Bonpland*.

“*S. caule erecto piloso, foliis petiolatis ovatis apice rotundatis obsolete cordatis crenatis utrinque molliter pilosis subtus subcanescentibus, verticillis 4-6-floris, galea integra.*

“Herba caule ramisque tetragonis pilosis. Folia petiolata, ovata, apice rotundata, obsolete cordata, crenata, reticulato-venosa, membranacea, utrinque molliter pilosa, subtus subcanescentia, pollicaria, 9 lin. lata. Petioli 4-5 lin. longi, pilosi. Flores verticillato-spicati, pedunculati, magnitudine floris *Ballotæ vulgaris*; verticillis 4-6-floris, fructiferis parum remotis. Calyx turbinato-campanulatus, 5-fidus, pilosus; laciniis ovato-oblongis acuto-mucronatis subæqualibus, 2 superioribus approximatis. Corolla violacea? tubo calycem vix superante, fauce ampliata compressiuscula, labio superiore galeato apice rotundato et integro externe pubescente, labio inferiore trifido plano superiorem longitudine paullo superante, laciniis lateralibus oblique oblongis obtusis, intermedia multo majore, subrotunda, integra. Filamenta glabra. Antheræ subrotundo-reniformes, dorso affixæ, biloculares. Stigma bifidum, laciniis acutis recurvato-patulis. Achenia ovato-subrotunda, lenticulari-trigona, lævia, glabra, nigro-cinerea. *S. hirtæ proxima.*”—*Kunth. l. c.*

A *S. Drummondii* differre videtur foliis villosioribus subtus canescentibus, et calycis forma.

63. *S. DEBILIS* (Humb. et Kunth. Nov. Gen. et Sp. Am. 2. 309).

Hab. in America æquinociali: in montibus temperatis Regni Quitensis inter Cachapamba et Chillo *Humboldt et Bonpland*.

“*S. caule erecto? puberulo, foliis petiolatis ovatis obtusis profunde cordatis crenatis glabriusculis venis margineque hirtellis, verticillis sub-10-floris, galea bifida.*

“Caules debiles, ramique quadrangulares, læves, puberuli. Folia petiolata, ovata, obtusa, profunde cordata, crenata, reticulato-venosa, membranacea, glabriuscula, subtus pallidiora, inque venis et margine hirtella, 10-11 lin. longa, 7 lin. lata. Petioli 3 lin. longi, canaliculati, pubescentes. Flores verticillato-spicati, pedunculati, magnitudine floris *Ballotæ vulgaris*; verticillis sub-10-floris, fructiferis remotis. Calyx turbinato-campanulatus, striatus, pilosiusculus, laciniis lanceolatis, aristato-subulatis, subæqualibus. Corolla pallide-violacea, tubo calycem paullo superante, galea recta bifida externe pubescente, labio inferiore triplo longiore trifido plano patente, laciniis rotundatis, intermedia duplo latiore emarginata, palato purpureo-maculato. Achenia subrotundo-obovata, lenticulari-trigona, lævia, fusca, glabra, magnitudine grani *Sinapis minoris*. *S. arvensi affinis.*”—*Kunth. l. c.*

64. *S. ELLIPTICA* (Humb. et Kunth. Nov. Gen. et Sp. Am. 2. 308).

Hab. in America æquinociali: in alta planitie Quitensi juxta Turubamba et Chillo *Humboldt et Bonpland*.

“ S. caule erecto, foliisque hirsutis petiolatis ellipticis apice rotundatis cordatis crenatis, verticillis sexfloris, galea integra.

“ Herba subpedalis. Caulis erectus, simplex, tetragonus, hirsutus. Folia opposita, petiolata, elliptica, leviter cordata, apice rotundata, margine crenata, reticulato-venosa, utrinque hirsuta, semi-pollicaria, 4 lin. et paullo latiora. Petioli 4 lin. longi, pilosi. Verticilli 6-flori, approximati. Flores subsessiles. Calyx tubuloso-campanulatus, 5-fidus, striatus, hirsutus, laciniis ovatis acuminato-mucronatis, 2 inferioribus minoribus approximatis. Corolla rosea, externe pubescens, tubo calycem duplo superante, limbo bilabiato, labio superiore integro subconcavo, inferiore trifido, laciniis lateralibus reflexis, intermedia majore basi maculis purpureis notata. Stamina didynama, demum ad latus utrinque reflexa. Filamenta pilosa. Antheræ per paria approximatae. Ovarium quadrisulcatum. Stylus glaber. Stigma bifidum. Achenia 4, in fundo calycis angulata, nigra, receptaculo communi imposita.”—*Kunth. l. c.*

SECTIO VI. OLISIA.

Olisiæ sp. *Dumort. Florul. Belg.*

Tetrahitum et Stachydis sp. *Hoffm. et Link.*

Herbæ annuæ vel perennes, glabræ, pubescentes vel pilosæ, nec lanatæ. Folia ovata. Verticillastri subsexflori. Bractæ minutæ. Calyces sæpius subspinescentes, nonnunquam bilabiati. Corollæ ochroleucæ.

65. S. HIRTA (Linn. ! Sp. 813), herbacea, erecta vel adscendens, ramosa, piloso-hirta, foliis petiolatis lato-ovatis crenatis basi late truncato-cordatis, floralibus sessilibus basi rotundato-cuneatis supremis ovatis acutis integerrimis, verticillastris 6-floris distantibus vel supremis approximatis, calycibus campanulatis pilosis, dentibus lanceolato-subulatis acutissimis spinescentibus, corollis extus pubescentibus calyce vix dimidio longioribus, tubo incluso, labio superiore emarginato-bifido.

S. hirta. *All. Fl. Ped. 1. 31. t. 2. f. 3. male.*

Sideritis ocymastrum. *Gou. Hort. Monsp. 278.*

Galeopsis hirsuta. *Linn. Sp. ed. 1. 580.*

Tetrahitum hirtum. *Hoffm. et Link. Fl. Port.*

Stachys divaricata. *Viv. ! Fl. Cors. App. 2.*

Stachys inscripta. *Reichb. Icon. Bot. Exot. 1. 28. t. 40.*

Galeopsis hispanica. *Mill. ex Steud. Nom. Bot. 351.*

Hab. in Europæ austro-occidentalis et in Africæ borealis siccis rupestribus maritimis: in Lusitania et Hispania ! prope Bayonam *Loiseleur*, in Italia prope Nicæam *Allioni*, Liguria *Viviani* ! Neapoli *Tenore* ! Sicilia *Gussone*, ad Tingidem *Salzmann* ! Tunetum *Desfontaines*, et in ins. Madera *Lowe* ! et Teneriffa *G. Don* ! (v. v. et h. s. sp.)

Herba annua, semipedalis vel vix pedalis, pilis longis mollibus patentibus hirta, præsertim in caules, petiolos, calyces, et folia floralia. Folia 1-1½-pollicaria, in locis siccis rugosula, pilis utrinque sparsis, inferiora obtusa mutica, superiora spinula brevi mucronata; floralia suprema calyce breviora vel (in locis humidis) longiora. Racemi 4-6-pollicares. Verticillastri infimi vix pollicem remoti. Folia floralia sæpe reflexa. Bractæ minutissimæ. Calyces 3-4 lin. longi; dentes æquales vel supremo parum longiore, tubo breviores vel longiores, corollæ tubum plerumque superantes. Corolla ochroleuca; tubus parum incurvus, superne ampliatus, intus brevissime piloso-annulatus; labium superius elongatum, erectum, extus pubescens, nunc breviter nunc profunde emarginato-bifidum, inferius valde patens, superiore brevius vel rarius æquilongum; lobis lateralibus parvis reflexis, medio rotundato

vix emarginato, lateralibus reflexis. Achenia obovoideo-triquetra, tuberculis minutis rugosa. In exemplaribus Vivianianis labium superius corolla parum longius, sed planta cæterum huic speciei conformis.

66. *S. ANNUA* (Linn.! Sp. 813), herbacea, annua, erecta, glabriuscula vel superne pubescens, foliis petiolatis ovatis obtusiusculis crenatis basi rotundatis cuneatisve, floralibus lanceolatis calyce longioribus acutis subintegerrimis, verticillastris subsexfloris distinctis supremis approximatis calycibus tubuloso-campanulatis villosis subincurvis, dentibus lanceolatis acutissimis subspinosi, corollis pubescentibus calyce subduplo longioribus.

S. annua. Jacq. *Fl. Austr.* 4. 31. t. 360.

Betonica annua. Linn. *Sp. ed.* 1. 573. Mæench. *Meth.* 396.

Stachys nervosa. Gat. *Fl. Mont.* 107.

S. Betonica. Crantz. *Stirp. Austr.* 265.

Hab. in Europæ arvis cultis et ad vias: in Gallia! Germania! Italia *Tenore*, in regione Tauro-Caucasico *Bieberstein*, in montibus Talüsch *C. A. Meyer*, et circa Trapezum *Durville*. Citatur etiam a *Sobolewskio* in Flora Petropolitana: an vera civis? (*v. v. et h. s. sp.*)

Herba annua, semipedalis vel vix pedalis, divaricato-ramosa, caule inferne glabrato vel parce pubescente, racemi rhachide pubescente. Folia caulina glabra, sesquipollicaria, 8-10 lin. lata; floralia inferiora glabra, 1½ poll. longa, sed vix 3-4 lin. lata, suprema multo minora, pubescentia. Verticillastri infimi remoti, supremi in spicam approximati. Bracteæ minutissimæ. Calyces 4 lin. longi. Annulus internus omnino nullus. Achenia lævia.

67. *S. PUBESCENS* (Ten.! Fl. Nap. Prod. 34), herbacea, perennis, adscendens, basi glabriuscula superne pubescens, foliis petiolatis ovatis obtusis crenatis basi cuneatis, floralibus ovatis calyce longioribus acutiusculis subintegerrimis, verticillastris subsexfloris distantibus, calycibus tubuloso-campanulatis villosis subincurvis, dentibus lanceolatis acutissimis subspinosi, corollis pubescentibus calyce duplo longioribus.

S. decumbens. Willd. *Enum. Hort. Berol. Suppl.* 41.?

S. Balbisii. Link. *Enum.* 2. 110.

S. fragilis. Vis. *Pl. Rar. Dalm. ex Reichb. Fl. Germ. Exc.* 319.*

Hab. in Europæ mediterranæ arvis siccis: in Hispania *Pavon!* Lucania *Tenore!* Dalmatia *Petter (Reichenbach)*. (*h. s. sp.*)

Ab affini *S. annua* differt caulibus longioribus basi procumbentibus perennantibus, verticillastris distantibus magis villosis, et foliis floralibus latioribus brevioribus. Calyces pilis mollibus albis villosi, dentibus tubum corollæ æquantibus. Corolla extus tenuiter pubescens. Annulus intra tubum incompletus, transversalis, brevissime pilosus. A *S. maritima* vix differt caulibus elongatis decumbentibus, verticillastris distantibus, et foliis minus rugosis.

68. *S. MARITIMA* (Linn.! Mant. 82.), herbacea, perennis, tomen-

* “*S. glabriuscula*, caule erecto ramoso fragili, foliis oblongo-lanceolatis obtusis, inferioribus subcrenatis latioribus, superioribus linearibus integris, spicis terminalibus solitariis ternisve aggregatis, verticillis contiguis 6-7-floris, bracteis ovato-cordatis acuminatis, bracteolisque setaceis integris canescentibus, calycibus campanulatis pubescentibus aristatis, corollæ labio superiore fornicato integro pubescente, inferioris lacinia media obcordata.

“Flores ochroleuci, fauce rubro-punctati. Pars floralis detrita foetet.”—Vis. in *Bot. Zeit.* 1829. 1. *Ergbl.* 14.

toso-hirsuta, adscendens, foliis breviter petiolatis oblongo-lanceolatis obtusis crenatis basi angustatis subrugosis, floralibus sessilibus ovatis obtusis supremis calyce subbrevioribus, verticillastris sub-6-floris infimis distantibus superioribus in spicam approximatis, calycibus tubuloso-campanulatis villosis, dentibus lanceolatis acutis muticis, corollis pubescentibus calyce dimidio longioribus.

S. maritima. Jacq. Hort. Vind. 1. 29. t. 70. Reichb. Icon. Bot. Eur. 5. 51. t. 484.

S. betonicaefolia. Pers. Syn. 2. 124. ? non Desf.

Hab. in regionis mediterraneæ arenosis maritimis: prope Valentiam *Pavon!* Barcinonem! Monspelium! Telonem! Nicæam! in littore Adriatico *Tenore*, in Oriente *Forskahl!* in Colchide prope arcem Soukoum *Durville*; etiam ad littora Oceani prope La Rochelle *Persoon?* (*v. v. et h. s. sp.*)

Caules numerosi, semipedales vel vix pedales, pilis brevibus patentibus hirsuti. Folia circiter pollicaria, sæpius rugosa et tomentosa. Spicæ breves, densæ, pilis numerosis albicantes. Verticillastri inferiores semipollicem distantes, supremi in spicam brevem oblongam approximati, sæpius 6-flori, nunc vero 2-4-flori. Bracteæ subnullæ. Calyces 3 lin. longi, dense tomentoso-hirti, dentibus acutis at rarissime subspinosi. Corolla ochroleuca, labio inferiore punctis purpureis basi notato. Annulus intra tubum incompletus, vix conspicuus. Labii inferioris lobi laterales medio vix minores. Achenia obovato-triquetra, lævia.

69. *S. SPINULOSA* (Sibth. et Sm.! Prod. Fl. Gr. 1. 410), herbacea, annua? ramorum angulis hispidis, foliis petiolatis lato-ovatis inferioribus basi cordatis, floralibus sessilibus ovato-lanceolatis, verticillastris 6-10-floris distinctis, bracteis minutis, calycibus ample campanulatis, dentibus latis acutis subspinosi æqualibus tubum corollæ subæquantibus, corollæ labio inferiore maximo.

Galeopsis orientalis. Mill.!

Hab. in regione Mediterranea orientali: in Dalmatia et Istria *Reichenbach*, in Creta *Sieber!* *Sibthorp!* Corfu *H. F. Talbot!* circa Byzantium frequens, in littore Asiatico *Durville.* (*h. s. sp. comm. a cl. Endlicher et Talbot.*)

Caulis erectus vel adscendens, 1-1½-pedalis, acute tetragonus, angulis pilis patentibus vel obversis rigidis plus minusve ciliatis, cæterum glaber. Folia inferiora longe petiolata, limbo 1-2-pollicari crenato utrinque viridi, sparse pilosa, superiora brevius petiolata et basi truncata vel cuneata; floralia plerumque calyce breviora. Calyces magnitudine et colore *S. menthaefoliæ*, sed dentes omnes æquales. Corolla fere *S. menthaefoliæ*, tubus parum longior, intus oblique annulatus; labium superius erectum oblongum integrum, inferius duplo longius, lobo medio latissimo.

70. ? *S. MENTHÆFOLIA* (Vis.! Pl. Rar. Dalm. in Bot. Zeit. 1829. 1. Ergbl. 14), herbacea, adscendens vel erecta, hirsuta, foliis breviter petiolatis oblongo-ovatis serratis basi rotundatis subcordatisve, floralibus sessilibus acutis calyces vix superantibus, verticillastris 6-10-floris superioribus approximatis, calycibus ample campanulatis bilabiatis, dentibus latis acutissimis submuticis, corollæ labio inferiore maximo.

S. grandiflora. Host.! Fl. Austr. 2. 169.

Hab. in Dalmatia prope Ascrivium *Visiani!* (*h. s. sp. comm. a cl. Visiani.*)

Rami tetragoni, angulis obtusis subcallosis, pilis patentibus reflexisve hirsuti. Folia 2-3-pollicaria, siccitate nigra, utrinque hispida, superiora subamplexicaulia.

Verticillastri inferiores distantes superiores in spica 3-4-pollicari approximati. Calyces semipollicares, virides, hirsuti, ore obliquo, labio superiore nunc semitrifido nunc brevissime tridentato, inferiore bifido. Corolla ochroleuca, labio superiore pubescente oblongo integro, inferiore plus duplo longiore, lobis lateralibus oblongis, medio rotundato emarginato. Annulus tubi obliquus. Species a *S. hirta* toto cœlo diversa, et forsan ut sectio propria ob calyces bilabiatos habenda.

SECTIO VII. CHAMÆSIDERITIS.

Chamæsideritis. *Reichb. Fl. Germ. Exc.* 318.

Herbæ perennes, glabræ vel pilosæ, nec lanatæ. Folia oblonga, lanceolata vel linearia. Verticillastri 2-6-flori. Bracteæ minutæ. Calyces æquales, subspinescentes. Corollæ ochroleucæ vel purpureæ.

71. *S. SUBCRENATA* (Vis. ! Pl. Rar. Dalm. in Bot. Zeit. 1829. 1. Ergbl. 15), herbacea, adscendens, piloso-pubescent, foliis subsessilibus oblongo-lanceolatis obtusis vix crenatis basi angustatis integerimis, floralibus ovato-lanceolatis acutis supremis calyce brevioribus, verticillastris dense 6-10-floris distantibus, calycibus tubuloso-campanulatis pilosiusculis, dentibus ovatis acutissimis subspinosi subæqualibus, corollis glabriusculis calycis tubo duplo longioribus.

S. recta β. *Bert. Amæn. Ital.* 378.

Hab. in Dalmatiæ montanæ collibus *Visiani* ! in alpibus Apuanis prope i Fanti Scritti, Rascetto et Fornole *Bertoloni*. (*h. s. sp. e Un. Itin. Wurtemb.*)

Affinis *S. rectæ*, differt superficie parce piloso-pubescente, foliis angustioribus integrioribus non rugosis, et calycibus majoribus. Corollæ tubus intus oblique annulatus.

72. *S. RECTA* (Linn. Mant. 82), herbacea, erecta vel adscendens, piloso-hirta, foliis breviter petiolatis oblongo-ovatis lanceolatisve obtusis crenatis basi rotundatis angustatisve rugosis hirtis, floralibus sessilibus acutis superioribus calyce brevioribus, verticillastris sub-10-floris distantibus, calycibus ovato-campanulatis hirtis, dentibus ovatis acutissimis subspinosi æqualibus, corollis glabris calyce duplo longioribus.

S. recta. *Jacq. Fl. Austr.* 4. 31. t. 359.

Sideritis hirsuta. *Gou. Fl. Monsp.* 85.

Betonica hirta. *Gou. Hort. Monsp.* 276.

Betonica decumbens. *Mærch. Meth.* 396.

Tetrahit. herbariorum. *Ger. Fl. Gallopr.* 272.

Stachys betonica. *Crantz. Stirp. Austr.* 264.

S. bufonia. *Thuill. Fl. Par.* 1. 295.

S. procumbens. *Lam. Fl. Fr.* 2. 385.

S. sideritis. *Vill. Fl. Dauph.* 2. 375.

S. sylvestris. *Forsk. ! Fl. Const.* xxviii.

S. annua. *Sm. ! Prod. Fl. Gr.* 1. 410.* *non Linn.*

S. glutinosa. *Sm. ! Prod. Fl. Gr.* 1. 409.* *non Linn.*

S. decumbens. *Reichb. Fl. Germ. Exc.* 318 ? *vix Willd.*

* Sibthorp's specimens, marked *S. annua* and *S. glutinosa* by Sir J. E. Smith, belong either to *S. recta* or *S. arenaria*; but they are not in a state to determine with certainty to which of the two they should be referred.

Hab. in Europæ præsertim australioris siccis et ad vias: in Gallia! Hispania! Germania! Italia! Rossia meridionali *Prescott!* Tauria, Caucaso, montibus Beschtau et Talüsch *Pallas!* *Bieberstein, C. A. Meyer, &c.*; agro Byzantino, Asia minore, et Creta *Forskahl!* *Sibthorp!* &c. (*v. v. et h. s. sp.*)

Herba sæpius adscendens vel suberecta, nunc procumbens vel etiam omnino erecta. Folia 1-1½-pollicaria, latitudine et hirsutie variabilia, rarius fere glabra. Racemi elongati, verticillastris omnibus distantibus. Bracteæ minutissimæ. Calyces subsessiles, 2½ vel 3 lin. longi. Corolla duplo longior, ochroleuca, fauce purpurascens. Tubus dentes calycinis subæquans. Annulus internus obliquus, pilis brevibus subsquamosis. Labii inferioris lobus medius breviter emarginatus. Achenia obovoideo-triquetra, læviuscula.

73. *S. ARENARIA* (Vahl! *Symb. Bot.* 2. 64), herbacea, decumbens, canescenti-pubescens, foliis subsessilibus oblongo-linearibus lanceolatisve acutis subserratis basi longe angustatis integerrimis, floralibus minoribus supremis calyce brevioribus, verticillastris laxe 6-10-floris remotis, calycibus tubuloso-campanulatis pilosis, dentibus lanceolatis acutissimis subspinosus supremo parum majore, corollis extus pubescentibus calycis tubo duplo longioribus.

S. arenaria. *Bot. Mag.* 45. t. 1959. *Desf. Fl. Atl.* 2. 21. t. 126.?

S. iberica. *Bieb. Fl. Taur.-Cauc.* 2. 51. *Reichb. Icon. Bot. Exot.* 1. 43. t. 58.

S. prostrata. *Lag. Cat. Hort. Matr.*

S. scordifolia. *Willd. Enum. Hort. Berol.* 2. 616.

S. purpurea. *Poir. Dict. Suppl.* 5. 227.

S. rubra. *Donn Hort. Cant.*

Hab. in regione australiore Mediterraneo et Pontico: in regno Tunetano ad urbem Raf *Vahl!* et prope Biserte *Desfontaines*, in Sicilia *Gussone*, regno Neapolitano *Tenore*, in incultis circa Trapezum communis *Durville*, in Iberiæ apricis asperis *Steven!* *Bieberstein, &c.* (*h. s. c. et v. s. sp. in herb. plur.*)

Rami elongati, tetragoni, pilis longis mollibus suberectis plus minusve canescentes. Folia 1-1½-pollicaria, nervis lineata, mollia, utrinque pilis longis mollibus adpressis canescentia, infima latiora; floralia integriora minora, suprema minuta, ovato-lanceolata, integerrima, acutissima. Racemi laxi, adscendentes, fere pedales. Verticillastri laxiusculi, sæpius sexflori, nonnunquam vero 8-10-flori. Bracteæ vix pedicello longiores, setacæ. Calyces breviter pedicellati, 4 lin. longi, irregulariter 10-nervii, dentibus subpatentibus rigidiusculis. Corolla purpurascens, extus pilosa; tubus parum incurvus, breviter exsertus, intus exannulatus, sed sæpe ad insertionem staminum longitudinaliter villosus; labium superius erectum integrum; inferius parum longius, lobo medio rotundato subintegro, lateralibus ovatis. Stamina e tubo breviter exserta, filamentis breviter pilosis. Achenia triquetra, fusca, lævia.

The specimens I saw in Vahl's herbarium appeared to me, as far as I could judge at that time, to be identical with the Iberian plant common in gardens, and of which I have also seen many wild specimens. *Desfontaines'* figure represents the plant as less elongated and more hairy, but it probably refers to the same species.

74. *S. CONGESTA* (*Durv. Enum. Pl. Archip. in Mem. Soc. Linn. Par.* 324).

Hab. in Asia minore circa Trapezum ad ripas fluvii Pyxitis *Durville.*

“*S. caule basi ramoso prostrato tomentoso, foliis oblongo-ovatis crenulatis incanis, floribus congestis in spica densa breviori, corolla extus pillosa.*

“*S. arenariæ* nimium affinis, discedit tamen pube densa tomentosa, foliis brevioribus ovatis, caule crassiore quamvis breviori, spica florum congesta, densa, abbreviata, nunquam basi interrupta.”—*Durv. l. c.*

75. *S. ANGUSTIFOLIA* (Bieb. Fl. Taur.-Cauc. 2. 51), herbacea, glabra, ramis virgatis diffusis, foliis linearibus integerrimis serratis vel inferioribus pinnatifidis, racemis elongatis, verticillastris remotis bifloris, calycibus tubuloso-campanulatis glabris, dentibus subæqualibus acutissimis subspinosus, corollis extus pubescentibus, tubo breviter exserto.

S. angustifolia. Sweet. Brit. Fl. Gard. 2. t. 180.

S. tenuifolia. Pall. Link. Enum. Hort. Berol. 2. 109. Reichb. Icon. Bot. Exot. 1. 20. t. 28. non Willd.

S. recta. Durv. Enum. Pl. Archip. ? non Linn.

Hab. in Tauriæ meridionalis petrosis sylvaticis circa pagum Temird-schi *Bieberstein*, prope Cherson *Besser*! *Durville.* (*h. s. sp. comm. a cl. Durville.*)

Rami elongati, pluripedales, teneri, glaberrimi, virides. Folia inferiora hinc inde laciniis linearibus pinnatifida, omnia perangusta acuta, floralia superiora calyce breviora. Racemi ultrapedales, subsimplices. Verticillastri inferiores ultra pollicem remoti. Calyces breviter pedicellati, fructiferi 3 lin. longi, 10-nervi, inter nervos subavenii. Corolla purpurascens, glaber vel tenuiter pubescens. Tubus incurvus, breviter exsertus. Annulus internus versus medium tubi brevissime pilosus, subobliquus. Labium superius dimidio tubi brevius, inferius parum longius. Filamenta linea pilosa pubescentia. Achenia ovoideo-triquetra, nigra, lævia.

SECTIO VIII. AMBLEIA.

Suffrutices fruticesve tomentosi, rarius glabrati, nec pilosi. Verticillastri 2-6- rarius sub-10-flori. Bractæ parvæ vel paucæ. Calyces tomentosi vel lanati, dentibus mollibus muticis.

76. *S. HYSSOPOIDES* (Burch. ! Cat. Geogr. n. 2653), suffruticosa ? glaberrima, foliis linearibus integerrimis, floralibus supremis oblongis calycem æquantibus, verticillastris bifloris, calycis tubuloso-campanulati glabri vel lævissime tomentosi dentibus brevibus acutis muticis, corollis calyce duplo longioribus.

Hab. in Africa australi extratropica *Burchell*! (*h. s. sp. comm. a cl. Burchell.*)

Rami tetragoni, læves. Folia pollicaria, basi longe angustata, obtusiuscula, utrinque viridia, uninervia, floralia gradatim latiora et breviora. Calyces juniores interdum tomento tenuissimo conspersi. Corollæ extus sericeæ.

77. *S. CÆRULEA* (Burch. ! Cat. Geogr. n. 1775), suffruticosa ? ramis elongatis laxè subtomentosis, foliis linearibus oblongisve integerrimis vel apice subdenticulatis basi longe angustatis utrinque glabris vel vix tomentosis, floralibus superioribus calyce brevioribus, verticillastris bifloris, calycis cano-tomentosi dentibus lato-lanceolatis muticis, corollis calyce subduplo longioribus.

Hab. in Africa australi extratropica *Burchell*! (*v. s. sp. in herb. Burchell.*)

Rami tetragoni, apice sæpe glabrati. Folia 2-4-pollicaria, subviridia, vel to-

mento tenui, præsertim in pagina inferiore, conspersa. Flores pauci, remoti. Corolla extus sericea.

78. *S. SPATHULATA* (Burch. ! Cat. Geogr. n. 1738), suffruticosa, tota cano-tomentosa, foliis lineari-spathulatis integerrimis, floralibus superioribus calycem vix superantibus, verticillastris bifloris, bracteis parvis, calycis tubuloso-campanulati dentibus lato-lanceolatis tubum corollæ æquantibus.

Hab. in Africa australi extratropica *Burchell* ! (h. s. sp. comm. a cl. *Burchell*.)

S. lineari valde affinis. Differt foliis latioribus basi longe angustatis, floribus subracemosis, foliis floralibus superioribus parvis, et corollis calyces parum superantibus, tubo incluso.

79. *S. LINEARIS* (Burch. ! Cat. Geogr. n. 2717), suffruticosa, tota cano-tomentosa, foliis sessilibus linearibus integerrimis, floralibus flores superantibus, verticillastris subbifloris, bracteis minutis, calycis tubuloso-campanulati dentibus lanceolatis acutis muticis tubo corollæ brevioribus.

Hab. in Africa australi extratropica *Burchell* ! (h. s. sp. comm. a cl. *Burchell*.)

Rami obtuse tetragoni, tomento subfloccoso dense vestiti. Folia pollicaria angusta, utrinque candida. Flores pauci. Axillæ superiores steriles. Calyces breviter pedunculati. Corollæ calyce subduplo longiores, extus sericeæ.

80. *S. ROSMARINIFOLIA*, suffruticosa, cano-tomentosa, foliis subsessilibus oblongo-linearibus integerrimis basi rotundatis utrinque tomentosis subtus albis, verticillastris sub-6-floris distantibus, bracteis subulatis calyce brevioribus, calycibus campanulatis cano-tomentosis, dentibus lanceolato-subulatis acutis muticis, corollis dentes calycinis vix excedentibus extus tomentosis.

S. hyssopifolia. *Vahl. Herb. non Mich.*

Sideritis pallida. *Thunb. Prod. Fl. Cap. 95 ?*

Hab. ad Caput Bonæ Spei ? (v. s. sp. ? in herb. *Vahl*.)

Fruticulus humilis, ramis teretibus tomento brevi omnino vestitis. Folia potius *Rosmarini* vel *Lavandulæ* quam *Hyssopi*, circiter pollicaria, acutiuscula, supra viridia, tenuiter tomentosa, non rugosa, subtus venosa, tomento densiore candida, floralia calyces superantia. Verticillastri pauci versus apices ramorum, supremi nunc approximati. Bracteæ 2-3 calycis tubum fere æquantes, cæteræ minutæ. Corollæ labia subæqualia, patentia, superius subintegerrimum, inferioris lobi laterales parvi.

81. *S. RUGOSA* (Ait. Hort. Kew. 2. 303), suffruticosa, cano-tomentosa, foliis subsessilibus oblongo-linearibus lanceolatisve basi longe angustatis integerrimis rugosis utrinque tomentosis, verticillastris 6-10-floris distantibus, bracteis subulatis exterioribus calyces subæquantibus, calycibus campanulatis cano-tomentosis, dentibus lanceolato-subulatis acutis muticis, corollis calyce subduplo longioribus.

S. rugosa. *Jacq. Ic. Rar. 3. 7. t. 493.*

Hab. in Africa australi ad Caput Bonæ Spei *Masson* ! (v. s. sp. in herb. *Linn. et Banks*.)

Affinis *S. rugosæ* et *S. rosmarinifoliæ*: a priori differt foliis angustioribus, calycibus tomentosis nec lanatis, dentibus longioribus; a *S. rosmarinifolia* foliis rugosis basi longe angustatis subpetiolatis et corollis majoribus. A *S. jugali* differt calycibus sessilibus corollisque minoribus.

82. *S. DENTICULATA* (Burch. ! Cat. Geogr. n. 1369), suffruticosa, ramis cano-tomentosis, foliis petiolatis obovatis oblongisve obtusis crenatis undulato-crispis rugosissimis subtus subfloccoso-tomentosis, verticillastris bifloris, bracteis parvis subulatis, calycibus tubuloso-campanulatis laxe tomentosis, dentibus ovato-lanceolatis acutis muticis, corollis calyce vix duplo longioribus.

Hab. in Africa australi extratropica *Burchell* ! (h. s. sp. comm. a cl. *Burchell*.)

Rami et folia fere *Marrubii vulgaris*. Folia $\frac{1}{2}$ - $\frac{3}{4}$ -pollicaria, floralia calycibus subduplo longiora. Calyces breviter pedicellati. Corollæ extus sericeæ.

83. *S. CUNEATA* (Herb. Banks, MSS.), suffruticosa, tomentoso-lanata, foliis petiolatis obovato-cuneatis subrotundatis obtusis crenatis undulato-crispis rugosissimis utrinque subfloccoso-tomentosis, verticillastris bifloris, bracteis parvis subulatis, calycibus campanulatis dense tomentosis, dentibus ovato-lanceolatis acutiusculis muticis, corollis calyces breviter superantibus.

Hab. in Africa australi: ad Caput Bonæ Spei *Masson* ! (v. s. sp. in herb. *Banks*.)

Rami et folia fere *Marrubii Alyssi*. Folia vix semipollicaria, floralia calyces superantia. Flores ad apices ramorum approximati, decussati. Calyces 3-4 lin. longi. Corollæ parvæ, extus sericeæ.

84. *S. PAUCIFLORA*, suffruticosa, floccoso-lanata, foliis subsessilibus oblongo-lanceolatis obtusis integerrimis basi angustatis rugosis, verticillastris bifloris rarissime sub-4-floris distantibus, calycibus tubuloso-campanulatis floccoso-tomentosis, dentibus lanceolatis acutis muticis, corollis calycem breviter superantibus.

S. orientalis. *Forsk. ! Fl. Ægypt. lxviii. non Linn.*

S. palæstina. *Vahl ! Symb. 2. 64. non Linn.*

Hab. in. Ægypto prope montem Sinai *N. Bové* ! (h. s. sp. a cl. *Bové lect*.)

Caules e basi fruticosa 1-1 $\frac{1}{2}$ -pedales, ramosi. Rami, folia, et calyces constanter dense tomento albo vel flavescente lanata. Folia inferiora 1-1 $\frac{1}{2}$ -pollicaria, superiora breviora, floralia plerumque calycibus breviora. Verticillastri in exempl. sylvestribus constanter biflori. Calyces subsessiles. Bracteæ minutæ. Corolla parva, extus sericea. In exempl. in horto Societatis Horticulturalis Londinensis ex seminibus Ægyptiacis cultis folia majora, latiora (at basi constanter angustata), floralia calycibus duplo longiora: an eadem species?

85. *S. NIVEA* (Labill. ! Ic. Pl. Syr. 3. 5. t. 3), suffruticosa, tomentoso-lanata, foliis subsessilibus oblongis obtusis integerrimis basi angustatis crassis, verticillastris 2-4-floris paucis distantibus, calycibus tubuloso-campanulatis niveis, dentibus ovatis obtusis muticis, corollis calyce dimidio longioribus extus pubescentibus.

Hab. in Syriæ aridis prope Damascum *Labillardière* ! (v. s. sp. in herb. *Lambert*.)

Rami erecti, subsimplices, semipedales pedalesve, uti folia et calyces tomento albo

denso subfloccoso lanati. Folia $1\frac{1}{2}$ -pollicaria, venis paucis subtus notata; floralia calyce longiora. Verticillastri in axillis foliorum superiorum 2-3. Bracteæ minutissimæ. Calyces 4-5 lin. longæ, dentibus crassis mollibus brevibus. Corollæ tubus dentes calycinos æquans. Labia subæqualia, patentia, superius subintegerrimum, inferioris lobi laterales parvi.

86. *S. BURCHELLII*, suffruticosa, floccoso-tomentosa, foliis subsessilibus oblongis vel oblongo-lanceolatis serrato-crenatis basi angustatis rugosis, verticillastris 6-10-floris distinctis, bracteis minutissimis, calycis tubuloso-campanulati dentibus lanceolatis obtusis muticis patentibus superioribus majoribus, corollis calyce subbrevioribus.

Phlomis micrantha. *Burch. ! Cat. Geogr. n. 1672. Trav. 340.*

Sideritis rugosa. *Thunb. ! Prod. Fl. Cap. 95.*

Hab. in Africa australi extratropica *Burchell ! ad Caput Bonæ Spei Thunberg ! (h. s. sp. comm. a cl. Burchell.)*

Suffrutex facie *Marrubii peregrini*. Rami subteretes, tomento floccoso molliter incani. Folia tenuiter floccoso-tomentosa, inferiora 2-3-pollicaria, valde rugosa, subtus dense reticulata, subviridia; floralia caulinis conformia at minora, candidiora, flores tamen duplo triplove superantia. Verticillastri laxiusculi. Dentes calycini breves. Corolla parva, labio superiore integerrimo, inferiore majore patente, lobo medio lato-rotundato undulato.

87. *S. ÆGYPTIACA* (Pers. Syn. 2. 124).

Hab. in Ægypto *Herb. Jussieu (Persoon.)*

"*S. incana*, floribus spicatis, foliis ovatis rugosis, bracteis late ovatis acuminatis, calyce campanulato lævi. A *S. palæstina* calyce omnino lævi differt. Spica densa."
—*Pers. l. c.*

88. *S. PALÆSTINA* (Linn. ! Spec. 1674), suffruticosa, canescens, tomentosa, foliis sessilibus oblongo-lanceolatis obtusis vel aristato-mucronatis integerrimis basi parum angustatis amplexicaulibus rugosis, verticillastris subsexfloris demum remotis vel supremis approximatis, calycibus tubuloso-campanulatis cano-tomentosis, dentibus obtusis muticis, corollis calyce vix duplo longioribus.

S. lanata. *Mœnch. Meth. 397. non Jacq.*

Hab. in Palæstinæ montibus inter Gaza et Jerusalem *N. Bové ! (h. s. sp. comm. a cl. Bové.)*

Rami subteretes, albo-tomentosi. Folia 1-2-pollicaria, supra pallide viridia vel canescentia, bullato-rugosa, subtus candidiora, venis elevatis rugosa, utrinque uti calyces pubescentia brevissima tomentosa, in exemplaribus sylvestribus sæpe mucrone rigido aristata; floralia breviora, suprema ovata, omnia calyces superantia. Racemi juniores densi demum elongati. Bracteæ minutæ. Calyces sessiles, 3-4 lin. longi, herbacei, nervis vix prominentibus. Corolla alba? extus sericeo-pubescentia. Tubus subrectus dentes calycinos æquans, intus irregulariter piloso-annulatus. Stylus apice brevissime bifidus, lobis obtusis.

89. *S. NUTANS*, suffruticosa, pubescens, foliis sessilibus ovatis obtusis crenatis basi angustatis rugosis supra villosis subtus albo-lanatis, verticillastris 2-6-floris, calycibus pedicellatis densissime albo-lanatis fructiferis reflexis, dentibus lanceolatis obtusis muticis, corollis calycem breviter superantibus extus pubescentibus.

Hab. in Africa australi: ad Caput Bonæ Spei *Dahl ! (v. s. sp. in herb. Vahl.)*

A *S. Lamarckii* differt foliis latioribus supra viridibus, pilis longis villosiusculis nec albo-lanatis et præsertim calycibus nutantibus profundius dentatis.

90. *S. LAMARCKII*, suffruticosa, tomentoso-lanata, foliis subsessilibus oblongis obtusis crenatis basi angustato-rotundatis crassis rugosissimis, verticillastris subsexfloris paucis distantibus, calycibus tubulosis densissime albo-lanatis dentibus ovatis obtusis muticis, corollis calycem breviter superantibus extus albo-tomentosis.

S. rugosa. Lam.! *Ill. t.* 509. *f.* 3. non Ait.

Sideritis decumbens. Thunb. *Prod. Fl. Cap.* 95.

Hab. in Africa australi: ad Caput Bonæ Spei *Brugmans!* (*v. s. sp. in herb. Vahl.*)

Habitus *Marrubii*. Rami tetragoni, juniores lana alba vix floccosa vestiti, demum subglabrati. Folia 6-12 lin. longa, bullato-rugosissima, lana brevi molli utrinque vestita. Calyces 4-5 lin. longi. Corolla calycem breviter excedens, flava? labio superiore integerrimo, inferiore paullo majore patente, lobo medio lato-rotundato undulato.

91. *S. JUGALIS* (Burch.! *Cat. Geogr. n.* 1233), suffruticosa, subfloccoso-tomentosa, foliis subsessilibus oblongo-lanceolatis apice subcrenatis rugosis, verticillastris 6-10-floris distantibus, calycis lanati dentibus lato-lanceolatis acutis muticis, corollis calyce duplo longioribus.

Hab. in Africa australi extratropica *Burchell!* (*h. s. sp. comm. a cl. Burchell.*)

Rami pedales, pauci-foliati, tomento albo obtecti. Folia 1-1½-pollicaria, basi integerrima et angustata, tomento supra subvelutino, subtus floccoso, canescentia; floralia gradatim minora, suprema calyces vix superantia. Bracteæ parvæ, setaceæ. Calyces breviter pedicellati, 3-4 lin. longi, striis apice subprominentibus, tomento denso floccoso vel subvelutino. Corolla extus sericeo-villosa.

92. *S. INFLATA*, suffruticosa, ramis albo-tomentosis, foliis subsessilibus oblongis obtusis integerrimis subrugosis subtus albo-tomentosis, verticillastris subsexfloris distantibus, bracteis linearibus brevibus, calycis sessilis inflato-campanulati albo-tomentosi dentibus ovatis obtusiusculis muticis, corollis calyce dimidio longioribus.

Hab. in Africa septentrionali? verosimiliter in Ægypto (*h. s. c. e Hort. Soc. Hort. Lond.*)

Rami elongati, tomento subfloccoso. Folia vix pollicaria, supra pallide viridia, fere glabra, subtus paucivenia, tomento subfloccoso; floralia calyce breviora. Calyces floriferi 6-7 lin. longi, obscure 10-nervi, dentibus brevibus; fructiferos non vidi. Corollæ extus tenuiter sericeæ. Species calycibus maximis distinctissima.

93. *S. INTEGRIFOLIA* (Vahl.! *Herb.*), suffruticosa, ramis tomentoso-lanatis, foliis subsessilibus oblongis obtusiusculis integerrimis vel apice paucicrenatis basi angustatis viridibus, verticillastris 6-10-floris distinctis, bracteis linearibus calyce brevioribus, calycis ovato-tubulosi sessilis dense lanati dentibus linearibus obtusis muticis, corollis calyce dimidio longioribus.

Betonica heraclea. Linn.! *Mant.* 83.

Phlomis parvifolia. Burch.! *Cat. Geogr. n.* 1232. *Trav.* 225.

Sideritis plumosa. Thunb. *Prod. Fl. Cap.* 95.

Hab. in Africa australi ad Caput Bonæ Spei *Burchell!* *Thunberg!* (*h. s. sp. comm. a cl. Burchell, et v. s. sp. in herb. DC., Vahl., et Linn.*)

Rami teretes. Folia semipollicaria vix rugosa, juniora lana substellata conspersa, adulta fere glabra; floralia longiora, tomento densiore. Verticillastri densi. Calyces pilis aureis intertextis densissime lanati. Corollæ labium superius extus pubescens, inferius majus, patens, lobo medio lato-rotundato undulato. Styli lobi æquales.

SECTIO IX. ZIETENIA.

Zietenia et Stachydis sp. *Auct.*

Suffrutices pilis mollibus albis lanati vel glabrati. Bracteæ parvæ vel paucæ. Verticillastri 2-6-flori. Calyces lanati vel glabri, dentibus subulatis sæpissime spinosis.

94. *S. LAVANDULÆFOLIA* (Vahl.! *Symb. Bot.* 1. 42), suffruticosa, pilosa, foliis caulinis petiolatis oblongo-lanceolatis integerrimis utrinque angustatis, floralibus sessilibus ovato-lanceolatis, verticillastris 2-6-floris, calycis dentibus linearibus muticis tubo longioribus corollam excedentibus.

Zietenia orientalis. Gled. Act. Berol. 1766. 3.

Sideritis calycantha. Bieb. Fl. Taur.-Cauc. 3. 393. *Reichb. Icon. Bot. Eur.* 1. 17. t. 15.

Hab. in Asiæ Caucasicæ locis lapidosis siccis: prope Tiflim *Fischer!* Angora *Lady Liston!* in montibus altioribus Talüsche *C. A. Meyer!* (*h. s. sp.*)

Suffrutex humilis, procumbens, ramis erectis, sterilibus brevibus foliosis, floriferis semipedalibus, uti petioli, folia floralia, et calyces, pilis longissimis mollibus patentibus obsessis. Folia obtusiuscula, mollia, pilis longis adpressis subcanescentia, lineis subparallelis venosa, ramorum steriliū basi in petiolum longe angustata, petiolis basi connato-amplexicaulibus; floralia basi cordato-amplexicaulia. Bracteæ subnullæ. Calycis tubus 3 lin. longus, dentibus demum 4-6-linearibus mollibus acutis sed muticis æqualibus subdivaricatis longe pilosis. Corolla roseo-purpurea, dentibus calycinis constanter brevior, extus pubescens; annulus internus brevissime pilosus; labium superius breviter emarginatum.

95. *S. MUCRONATA* (Sieb.! *Pl. Cret. Exs.*), suffruticosa, ramosissima, pilis longis laxis lanata, foliis petiolatis oblongis crenatis rugosis, verticillastris 2-4-floris, calycibus campanulatis, dentibus longis subspinosus corollas superantibus.

Hab. in Creta *Sieber!* (*h. s. sp. comm. a cl. Endlicher.*)

Rami floriferi semipedales, divaricato-trichotomi, rigidi, duri, uti folia et calyces pilis laxis longis mollibus albis lanati. Folia pollicaria; floralia sessilia, superiora calycibus breviora. Verticillastri distincti, plerumque biflori. Bracteæ paucæ, oblongo-lineares. Calyces semipollicares, pedunculati, rigidi, nervosi, dentibus tubum æquantibus, fauce intus villis clausa. Corollæ tubus glaber, intus versus medium piloso-annulatus; limbus extus villosissimus, labio superiore integro concavo, inferiore subæqualiter trifido, lobis oblongis, medio parum latiore.

96. *S. SPINOSA* (Linn. *Bot. Syst. Veg.* 3. 58), suffruticosa, pilis adpressis sericeo-lanata, ramosissima, ramis apice spinescentibus, foliis sessilibus linearibus integerrimis, verticillastris bifloris, calycibus campanulatis, dentibus lanceolatis spinosis tubum corollæ æquantibus.

Hab. in Creta *Sibthorp* ! &c. (*h. s. c. et v. s. sp. in herb. plur.*)

A *S. glutinosa* differt ramis, foliis, calycibusque sericeo-lanatis, ramis sæpissime spinescentibus ramosioribus, et corollis parum majoribus.

97. *S. GLUTINOSA* (Linn. Sp. 813.), suffruticosa, glabra, ramosissima, foliis oblongo-linearibus acutis subintegerrimis basi angustatis, verticillastris subbifloris, calycibus campanulatis glabris, dentibus æqualibus ovatis acutissimis subspinosus, corollis extus sericeo-pubescentibus, tubo dentes calycinos subæquante.

Hab. in Europa mediterranea: in collibus Corsicæ *Requien* ! in Creta *Willdenow*, at dubia civis. (*h. s. sp. comm. a cl. Requien.*)

Fruticulus humilis, ramis acute tetragonis divaricato-ramosissimis, ramulis sæpe spinosis. Folia caulina pollicaria, inferiora in petiolum brevem angustata, pilis raris interdum conspersa, cæterum omnia glabra, superiora sessilia, gradatim minora, suprema minuta, ovata, acutissima. Flores in axillis brevissime pedicellati, solitarii vel 2 oppositi, axillis supremis sterilibus. Bractæ pedicello longiores, sed vix tertiam partem calycis attingentes. Calyx 3 lin. longus, viridis, 10-nervius, inter nervos avenius, fructifer late campanulatus. Corolla fere alba; labium superius vix dimidio tubi æquale, extus pilis densis sericeis vestitum, integrum; inferius duplo longius, subpatens, lobis lateralibus ovatis, medio orbiculato vix emarginato; annulus internus versus medium tubi. Filamenta linea pilosa munita. Antherarum loculi distincti. Achenia magna, ovato-triquetra, subcompressa, nigra, lævia.

98. *S. FRUTICULOSA* (Bieb. Fl. Taur.-Cauc. 2. 51), suffruticosa, basi divaricato-ramosissima, ramis pilosiusculis, foliis sessilibus oblongo-lanceolatis linearibusve subdenticulatis utrinque viridibus glabris, floralibus conformibus, verticillastris bifloris, calycis dentibus lanceolatis acutissimis subspinosus tubo subbrevioribus, corollis calyce subduplo longioribus.

Hab. in Caucasi orientalis et Iberiæ lapidosis montosis *Bieberstein*, *C. A. Meyer*, *Steven* ! (*v. s. sp. in herb. Smith et Banks.*)

Folia $\frac{1}{2}$ -1-pollicaria, denticulis brevibus remotis. Corolla pallide purpurea, magnitudine *S. rectæ*, calyce subduplo longior; galea emarginata vel breviter bifida, labium inferius subæquans. An revera hujus generis?

Species non satis notæ.

99. *S. BETONICÆFOLIA* (Desf. Cor. Pl. Tourn. in Ann. Mus. Par. 10. 304. t. 25).

Hab. in Creta *Tournefort* (*Desfontaines*).

“*S. villosa*, foliis cordatis crenatis, verticillis subsexfloris, calycibus muticis.

“*Annua*. Caulis villosus, tetragonus, erectus, ramosus, bipedalis. Folia cordata, rugosa, crenata, obtusa iis *Betonicæ officinalis* similia, petiolata. Verticilli distincti, 2-6-flori, foliis floralibus ovatis subdentatis calyce longioribus. Calyx campanulatus, villosus, pentagonus, dentibus brevibus ovatis obtusiusculis muticis. Corolla magna, alba; tubus calyce longior; labium superius elongatum, integer, inferius trifidum, lobis lateralibus brevibus obtusis, medio multo majore, rotundato, integro-flavescente.”—*Desf. l. c.*

An *S. spinulosa* ?

100. *S. SCORDIOIDES* (Poir. Dict. 7. 373).

Hab. in Africa septentrionali? *Poiret*.

"*S. caule suffruticoso, foliis lanceolato-linearibus subintegris, floralibus inciso-spinosis, dentibus calycinis rectis subulatis.*

"*Rami numerosi, divaricati, tetragoni, rigidi, villosi, præsertim in parte superiore. Folia dentibus paucis latis irregularibus notata, vel interdum apice subincisa, obtusissima, basi in petiolum angustata, utrinque glabra; floralia sessilia, subamplexicaulia, lata, glabra, majuscula, irregulariter margine inciso-spinosa. Flores sub folia fere reconditi. Verticillastri interrupti, terminales, 6-9-flori. Bracteæ nullæ. Calyx tubulosus, striatus, subviridis, villosus, dentibus 5 æqualibus, rectis, subulatis, subspinosus. Corolla flavescent; calyce parum longior labio superiore recto subplano emarginato, inferiore brevior latiore; lobis 3 rotundatis inæqualibus subcrenulatis.*"—*Poir. l. c.*

Videtur ex descriptione *Sideritidis* species.

101. *S. OLYMPICA* (Poir. Dict. Suppl. 5. 226).

Hab. in monte Olympo *Toscan* (*Poiret.*)

"*S. villosa, caule simplici recto stolonifero, foliis ellipticis argute serratis lanugine ciliatis, caulinis distantibus apice petioli recti patentibus, spica densa lanuginosa.*

"*Affinis S. niveæ. Caulis pedalis, lanuginosus. Folia pollicaria, utrinque obtusa, villosa, supra albo-subviridia, subtus lanuginosa. Folia inferiora vel stolonum cæspitosa magis lanata, margine crasso tomentoso eleganter cincta. Verticilli densi. Calyces tomentosi, dentibus ovatis, inæqualibus, spinosis, tribus inferioribus angustioribus. Corolla albo-flavescent, extus villosa, mediocris, tubo vix calycem æquante; labio superiore integro concavo, inferioris lobis integris, medio majore.*"—*Poir. l. c.*

102. *S. TOURNEFORTII* (Poir. Dict. Suppl. 5. 227).

S. cretica latifolia. Tourn. Inst. R. Herb. 186. Itin. 1. 33. t. 1.

Hab. in ins. Creta prope Caneam *Tournefort* (*Poiret.*)

"*S. foliis cordato-ovatis subcrenatis obtusis, petiolis basi connatis, verticillis multifloris, corolla magna extus villosa, tubo longitudine calycis, caule tomentoso.*

"*Species pulchra, floribus magnis roseis. Caules ramosi, bipedales, tomento albo vestiti. Folia basi profunde cordata, venosa, rugosa, albo-viridia, tenuiter crenulata, 2-3 poll. longa, pollicem et ultra lata; petioli basi dilatato-connati. Verticilli sessiles, densi, foliis 2 ovatis sessilibus aucti. Calyx albo-tomentosus, dilatatus, dentibus purpurascens, spinosis. Corollæ tubus 6 lin. longus, albidus; labia rosea; superius semipollicare, rectum, obtusum, apice subemarginatum, extus villosum, inferius æquilongum, lobis lateralibus parvis, medio 6 lin. lato, obtuso, subemarginato.*"—*Poir. l. c.*

Species dubiæ.

S. DECUMBENS (Pers. Syn. 2. 123).

Hab.

"*S. verticillis multifloris approximatis, bracteis filiformibus, foliis cordatis dentatis, caule decumbente villosa.*

"*Corolla flavescent, S. circinatæ habitu similis, sed folia simpliciter cordata, et bracteis sub foliis floralibus distincta. Caulis ramosus.*"—*Pers. l. c.*

An *S. mollissima*?

S. VENOSA (Pers. Syn. 2. 123).

Hab.

"*S. foliis inferioribus spathulatis obtusis crenatis petiolatis rubro-venosis caulinis subrhomboideis, caule villosissimo, calyce lævi.*"—*Pers. l. c.*

S. BETÆFOLIA (Pers. Syn. 2. 124).

Hab.

"*S. foliis petiolatis cordatis inciso-crenatis, spica compacta villosa.*"—*Pers. l. c.*

S. BARBIGERA (Viv. Fl. Cors. App. 2. 4).

Hab. in Corsica *Viviani*.

"*S. hirsuta*, caule adscendente, foliis cordatis ellipticis crenulatis, floralibus ovato-acutis calyces æquantibus, bracteis ovato-linearibus, verticillis 6-10-floris, calycibus regularibus spinulosis, corolla extus lanata, barbæ lacinia media obovata, acuta, lateralibus lineari-obtusis, duplo longiore.

"A *S. lasiantha* Guss., cujus refert habitum, differt foliis floralibus in hac lineari-lanceolatis calyce duplo longioribus, calycis dentibus lanceolato-acuminatis, barbæ lacinia media cuneato-obovata emarginata. A *S. heraclea* habitu et calyce præcipue in hac labiato recedit."—*Viv. l. c.*

S. MARRUBIIFOLIA (Viv. Fl. Cors. App. 2).

Hab. in Corsica *Viviani*.

"*S. pilis patentibus hirta*, caule brachiato, foliis cordatis subrotundo-ovatis crenatis, floralibus ovatis ellipticisque apice spinulosis, verticillis 6-floris, corollæ (purpureæ) labii inferioris lobis lateralibus abbreviatis, medio lobo galeaque emarginatis."—*Viv. l. c.*

S. VALENTINA (Lag. Nov. Gen. et Sp. 18).

Hab. in Hispaniæ collibus Engueræ oppidi in regno Valentino *Lagasca*.

"*S. foliis oblongo-lanceolatis subcordatis hirtis*, verticillis 6-7-floris summis sterilibus."—*Lag. l. c.*

S. STENOPHYLLA (Spreng. Syst. 2. 734).

Hab. in Hispania australi *Sprengel*.

"*S. suffruticosa*, hirsutiuscula, ramis virgatis, foliis linearibus trinerviis infimis sublanceolatis utrinque unidentatis, verticillis foliatis, calycibus pungentibus."—*Spr. l. c.*

S. GLAUDESCENS (Mussin. ex Spreng. Syst. 2. 736).

Hab. in Caucaso *Sprengel*.

"*S. caule erecto villosa*, foliis cordatis acuminatis serratis utrinque hirsutis, verticillis aphyllis spicatis, laciniis calycis divaricatis pungentibus."—*Spr. l. c.*

S. BIFLORA (Hook. ! Bot. of Beech. Voy. 155).

Captain Beechey's specimen is very imperfect, and apparently not in the ordinary state of the plant. The species, if it be one, must therefore for the present be omitted.

Species e genere excludendæ.

S. ARTEMISIÆ Lour. = *Leonurus sibiricus*.

S. DECEDMENTATA Forst. = *Leucas decedmentata*.

S. FENICULUM Pursh. = *Lophanthus anisatus*.

S. MAURITIANA Pers. = *Anisomeles ovata*.

S. PATENS Swartz. = *Hyptis verticillata*.*

S. SALVIÆ Lindl. = *Sphacele Lindleyi*.

S. SPECIOSA Hook. = *Gardoquia elliptica*.

Betonica excludenda.

B. LÆVIGATA Don. = *Nepeta spicata*.

* Synonymon supra p. 130 omissum.

LXXIX. SPHACELE.

Sideritidis sp. *Humb. et Kunth. Nov. Gen. et Sp. Amer.*

Sphacele. *Benth. in Bot. Reg. ad calc. n. 1289.*

Phytoxys. *Molina.*

Calyx campanulatus, fructifer sæpius ampliatus, irregulariter sub-10-nervius et reticulato-venosus, ore æquali intus nudo, profunde 5-dentatus, dentibus subæqualibus vel vix in labia 2 subdejectis. Corolla tubo amplo incluso vel exserto basi intus piloso-annulato, limbo brevi vix bilabiato, lobis lato-rotundatis erecto-patentibus, supremo subbifido, lateralibus integris, infimo majore emarginato. Stamina 4, adscendentia, subæqualia vel didynama, inferioribus longioribus. Filamenta glabra, nuda. Antheræ subapproximatæ biloculares, loculis linearibus distinctis divergentibus. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, lævia. — Suffrutices fruticesve, foliis bullato-rugosis subtus sæpe canescentibus, floralibus bracteæformibus vel rarius caulinis subconformibus. Verticillastri 2-6-flori. Racemi simplices vel ramosi, terminales.

An American genus, chiefly confined to the western side of the southern continent, with one Brazilian and one Californian species. It is allied to *Stachys*, with the leaves of *Salvia*.

CONSPECTUS SPECIERUM.

Folia $\frac{1}{2}$ -1-pollicaria.

Folia basi angustata 6. *S. CAMPANULATA.*

Folia basi rotundato-truncata vel hastata.

Verticillastri biflori 5. *S. TOMENTOSA.*

Verticillastri pluriflori 7. *S. SUBHASTATA.*

Folia 2-4-pollicaria.

Corollæ albidæ vel pallidæ, vix calycem excedentes.

Racemi breves, densiflori, spiciformes.

Folia basi rotundata 1. *S. SALVIÆFOLIA.*

Folia basi cordata 2. *S. BULLATA.*

Racemi laxi simplices vel paniculati.

Racemi subsimplices. Verticillastri biflori 4. *S. CALYCINA.*

Racemi paniculati. Verticillastri pluriflori 3. *S. PANICULATA.*

Corollæ rubro-violaceæ vel coccineæ, calyce duplo longiores.

Racemus densus, subsimplex 8. *S. LINDLEYI.*

Racemus laxis, ramosus.

Verticillastri pluriflori 9. *S. LAMIIFOLIA.*

Verticillastri biflori 10. *S. SPECIOSA.*

1. *S. SALVIÆFOLIA*, fruticosa, foliis oblongo-lanceolatis basi rotundatis supra rugoso-bullatis subtus ramisque canescentibus, verticillastris plurifloris secundis in racemis terminalibus subramosis spiciformibus congestis, corollis calyce subbrevioribus.

Sideritis salviæfolia. *Humb. et Kunth. Nov. Gen. et Sp. Amer.* 2. 307.

Hab. in America æquinotiali *Humboldt et Bonpland*, in Columbia unde semina a *cl. Illingworth* ad Societatem Horticulturalem Londinensem missa. (*h. s. c.*)

July 1834.

Frutex ramis tetragonis, pulvere canescenti conspersis et exasperatis. Folia petiolata, ovato-lanceolata aut lanceolato-oblonga, obtusiuscula, basi subrotundata, margine crenulata, reticulato-venosa, venis nervoque medio subtus prominentibus, scabriuscula et nigro-viridia, subtus reticulata, 2-4 poll. longa; floralia bractæformia, calyces subæquantia, ovata, acuminata, integerrima, rugosula. Racemi terminales, subterni, densi, intermedio duplo longiore 2-3-pollicari. Flores breviter pedicellati. Verticillastri 6-10-flori, approximati. Bractæ minutissimæ. Pedicelli et rhachis pubescentia. Calyx hispidulus, laciniis lanceolato-subulatis subæqualibus patulis foliisque floralibus cærulescentibus. Stylus glaber, exsertus. Corolla albido-cærulescens calycem subæquans, limbo brevissimo.

2. S. BULLATA.

Sideritis bullata. Humb. et Kunth. Nov. Gen. et Sp. Am. 2. 306.

Hab. in America æquinociali: in Andibus Novo-Granatensium inter Pasto et Teindala Humboldt et Bonpland.

“*S. fruticosa*, ramulis foliisque subtus cano-tomentosis supra glabris rugoso-bullatis oblongis obtusis cordatis crenulatis, spicis congestis densis, floribus subquinis, bracteis ovatis apice bidentatis, dentibus calycinis acuminato-subulatis.

“Frutex ramosissimus graveolens, ramis tetragonis glabris, ramulis albido-tomentosis. Folia petiolata, oblonga, obtusa, cordata, margine crenulata et reflexa, reticulato-venosa, supra rugoso-bullata, glabra et viridia, subtus incano-tomentosa, bipollicaria. Petioli semipollicares, incano-tomentosi. Spicæ complures, in apice ramorum fasciculatim congestæ, sessiles, cylindraceæ, sesquipollicares. Flores densi, breviter pedicellati, bractea communi suffulti. Bractæ ovatæ, apice bidentatæ, margine integerrimæ, reticulato-venosæ, pilosæ, floribus longiores. Pedicelli et rhachis incano-villosa. Calyx externe incano-villosus, 5-dentatus, dentibus acuminato-subulatis subæqualibus patulis. Corolla alba, tubo calycem paulo superante, superne paulo ampliato, limbo bilabiato patente, labio superiore bilobo, lobis obtusis, labio inferiore trilobo, lobo intermedio majore subrotundo. Stamina et pistillum generis. Fructus non observatus.”—Kunth. l. c.

3. S. PANICULATA.

Sideritis paniculata. Humb. et Kunth. Nov. Gen. et Sp. Am. 2. 307.

Hab. in America æquinociali: in temperatis montium Quitensium juxta Tarqui Humboldt et Bonpland.

“*S. suffruticosa*, ramis hirta-tomentosis, foliis oblongis sagittato-cordatis acutis crenato-dentatis supra rugoso-bullatis glabris subtus tenuiter incano-pubescentibus, spicis paniculatis, floribus verticillatis, bracteis ovatis dentibusque calycinis acutis.

“Suffrutex 3-4-pedalis, graveolens, ramis tetragonis hirta-tomentosis. Folia petiolata, oblonga, acuta, profunde sagittato-cordata, lobis angustatis approximatis, crenato-dentata, reticulato-venosa; supra rugoso-bullata glabriuscula et nigro-viridia, subtus tenuiter incano-tomentosa, tripollicaria et longior, 16 lin. lata. Petioli subsemipollicares, incano-tomentosi. Panicula terminalis, sessilis, sub-5-pollicaris, ramis patulis tetragonis incano-tomentosis. Flores breviter pedicellati, verticillis sub-6-floris approximatis. Bractæ ovatæ, acutæ, integerrimæ, reticulato-venosæ, hispidulæ, floribus duplo breviores. Calyx hispidulus, dentibus acutis, 2 inferioribus approximatis. Corolla prorsus *S. bullatæ*, alba. Achenia minutissima, triangularia, fusca, lævia. *S. bullatæ* valde affinis, diversa tamen ramis hirta-tomentosis, foliis sagittato-cordatis crenato-dentatis, spicis paniculatis, floribus verticillatis, et dentibus calycinis acutis.”—Kunth. l. c.

4. *S. CALYCINA*, suffruticosa? ramis molliter villosis, foliis petiolatis ovato-oblongis basi rotundatis subrugosis villosis, racemis subsimplicibus secundis, verticillastris bifloris remotis, calycibus amplis villosissimis, corollis amplis calyces breviter superantibus.

Hab. in California Douglas! (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Rami herbacei? vix tetragoni. Folia 2-3-pollicaria, molliora et minus villosa

quam in cæteris speciebus, margine irregulariter dentata; floralia infima subconformia, suprema parva, bractæformia, lanceolata, sessilia, integerrima, calyce breviora. Racemi semipedales. Calyx fere pollicaris, ample campanulatus, dentibus subæqualibus latis acutis. Corolla albida? breviter exserta, limbi lobi superiores brevissimi, infimus duplo longior, late rotundatus.

5. *S. TOMENTOSA* (Benth. in Herb. Mus. Par. MSS.), suffruticosa, prostrata, ramis adscendentibus tomentoso-villosis, foliis parvis oblongis basi rotundato-subdilatatis rugosis utrinque tomentosis, racemis laxis secundis, verticillastris bifloris, corollis vix calyces excedentibus.

Hab. in Peruvia ad Cheuchin *Dombey!* (v. s. sp. in herb. Mus. Par.)

Suffrutex humilis, divaricato-prostratus. Folia fere *S. subhastatæ*, semipollicaria, irregulariter et profunde crenata, valde rugosa, floralia subconformia, suprema sessilia. Calyces declinati, minores quam in *S. campanulata*. Corolla parum inflata, pallida.

6. *S. CAMPANULATA* (Benth. in Bot. Reg. 15. ad calc. n. 1289), fruticosa, ramis divaricatis, foliis parvis oblongo-lanceolatis basi angustatis supra bullato-rugosis viridibus subtus cano-tomentosis, racemis laxis secundis, verticillastris bifloris, corollis amplis calyce subduplo longioribus.

Rosmarinus chilensis. Molina. *Hist. Nat. Chili*, 13?

Dracocephalum chamædryoides. Balb. *Miscell.* 29.

Algae Laguen. Feuill. *Pl. Chil.* 3. t. 1.

Phytoxys acidissima. Molina. *Spreng. Syst.* 2. 716.

Hab. in Chili prope Valparaiso et la Conception *Dombey! Macrae! Cuming! Bertero! &c.* (h. s. sp.)

Frutex 2-3-pedalis, ramis junioribus tomentoso-pubescentibus. Folia breviter petiolata, semipollicaria vel vix pollicaria, obtusa, floralia subconformia, suprema parva, integriora, et minus rugosa. Calyces semipollicares, fructiferi ample campanulati, reticulato-venosi, extus tenuiter pubescentes. Corolla pallide cærulescens; faux amplissima; limbi lobi lati, crenulati. Stamina corollam subæquantia. Stylus subexsertus.

This plant has long been in cultivation in European botanical gardens, and, as suggested by Mr. Brown, appears to have been many years ago received from Chili into the Kew garden as a *Rosmarinus*. This circumstance, together with Molina's phrase, and the general resemblance of the plant without flowers to a rosemary with petiolate leaves, have induced me to refer to this species Molina's *Rosmarinus chilensis*, as well as his *Phytoxys*. The latter name, being the older, should have been preserved, were it not that it appears founded on a mistake, as I cannot learn that any species of the genus has any acidity in any part of it. Molina's description would, moreover, never have led any person to refer it to this plant without Feuillée's figure, which is good.

7. *S. SUBHASTATA* (Benth. in Bot. Reg. 15. ad calc. n. 1289), fruticosa, ramis tomentosis, foliis oblongo-lanceolatis basi truncato-subhastatis supra viridibus bullato-rugosis subtus albo-tomentosis, racemis laxis subsimplicibus, verticillastris plurifloris, corollis calyce subduplo longioribus.

Hab. in Chili prope Valparaiso *Macrae! Cuming! Bridges! &c.* (h. s. sp.)

Inter *S. campanulatam* et *S. Lindleyi* media. Rami elongati, divaricati, tomentosi. Folia vix pollicaria, obtusa, crenulata, floralia minora, bractæformia, integerrima, acuta, minus rugosa. Verticillastri 4-6-flori, vix secundi. Flores pedicellati suberecti. Calyces subcolorati, dentibus lineari-subulatis æqualibus. Corolla cærulea. Stamina subexserta.

8. *S. LINDLEYI* (Benth. in Bot. Reg. 15. ad calc. n. 1289), fruticosa, ramis floccoso-lanatis, foliis ovatis basi cordatis bullato-rugosissimis subtus albo-lanatis, racemis simplicibus densis, verticillastris plurifloris, corollis calyce duplo longioribus.

Stachys Salviæ. Lindl.! Bot. Reg. 15. t. 1226.

Sphacele Lindleyi. Bot. Mag. 57. t. 2993.

Hab. in Chili: prope Valparaiso vulgaris *Macrae! Bridges! &c.* (*h. s. sp.*)

Frutex 3-4-pedalis. Rami erecti, tetragoni, juniores lana alba dense vestiti, vetustiores glabrati. Folia $1\frac{1}{2}$ -3-pollicaria, vel in exemplaribus cultis etiam majora, basi late et profunde cordata auriculis rotundatis, floralia bractæformia, calycibus subbreviora, ovata, acuminata, sessilia, integerrima. Calyces fructiferi 8-9 lin. longi, rigidi, tomentoso-villosi. Corolla purpureo-violacea, ultrapollicaris, extus pubescens, limbo majore quam in cæteris subbilabiato, labio superiore erecto, inferiore subpatente.

9. *S. LAMIIFOLIA* (Benth. in Herb. Kunth. MSS.), fruticosa, ramis rufo-tomentosis, foliis breviter petiolatis ovatis basi cordatis villosis rugosis subconcoloribus, racemis laxis subramosis, verticillastris plurifloris, corollis longe exsertis.

Hab. in Peruvia *Dombey!* (*v. s. sp. in herb. Kunth.*)

Frutex ramis dense rufo-tomentosis. Folia obtusa, crenata, subtus glandulosa; floralia sessilia, lato-rotundata, suprema acuminata, glabra, pedicellis longiora. Verticillastri 4-6-flori. Pedunculi 3-lineares. Calyx fere *Salviæ*, subbilabiatus, campanulatus, dentibus setaceo-acuminatis. Corolla coccinea? sesquipollicaris, fere *Stachydis coccineæ*, lobis brevibus. Stamina corollam æquantia.

10. *S. SPECIOSA* (St. Hil. MSS.), fruticosa, ramis rufo-tomentosis, foliis petiolatis ovato- vel oblongo-lanceolatis basi late truncato-subcordatis supra bullato-rugosissimis subtus sublanatis demum glabratiss, racemis laxis paniculato-ramosis, verticillastris bifloris, corollis longe exsertis.

Hab. in Brasilia: in umbrosis rupestribus in Serra do Papagaio provinciæ Minas Geraes *A. de St. Hilaire!* (*v. s. sp. in herb. St. Hil.*)

Frutex 3-5-pedalis, ramis tetragonis, junioribus tomento denso subfloccoso vestitis. Folia 3-6-pollicaria, supra bullato- subtus lacunoso-rugosissima, juniora basi truncata, adulta subsagittato-cordata, omnia margine duplicato-crenulata; floralia parva, bractæformia, acuminata, subintegerrima. Panicula subramosissima, ramis rigidis paucifloris viscoso-pubescentibus. Pedicelli 2-4-lineares. Calyces floriferi 4-5, fructiferi 8-10 lin. longi, ample campanulati, dentibus æquilongis, sed in labia 2 subdejectis, inferioribus incurvis, superioribus rectis, omnibus lanceolatis subulato-acuminatis. Corolla rubro-violacea ultrapollicaris, tubo amplo, limbo brevissimo.

LXXX. SIDERITIS.

Sideritis. Linn. et Auct.

Hesiodia, Burgsdorffia, et Marrubiastrum. Mæench.

Empedoclea. Rafin.

Navicularia. Fabric.

Calyx tubulosus, 5-10-nervius, dentibus 5 erectis subspinosus

nunc æqualibus, nunc supremo latissimo, vel 3 superioribus basi in labium superius subconnatis. Corolla tubo incluso, intus nudo vel annulato, limbo bilabiato, labio superiore erecto subplano integro vel emarginato-bifido, inferiore patente trifido, lobo medio latiore sæpius emarginato. Stamina 4, didynama, tubo incluso, superiora brevissima, antheris bilocularibus loculis divaricatis, inferiora longiora, antheris dimidiatis cassis vel difformibus, rarissime superioribus conformibus. Stylus inclusus apice bifidus, lobo superiore tereti truncato apice stigmatifero, inferiore dilatato basi superiorem amplexente, apice et margine stigmatifero. Achenia sicca, apice obtusa nec truncata.—Herbæ, suffrutices vel frutices. Verticillastri 6-multi-flori, axillares racemosi vel spicati. Folia floralia nunc caulinis subconformia superioribus minutis, nunc bractæformia, dilatata, flores amplexentia, margine integerrima vel spinoso-dentata. Corollæ parvæ, sæpius flavescentes.

The first section is confined to the Canary Islands; the others are chiefly from the Mediterranean region, two or three species only extending into the more temperate parts of Europe and Asia.

Each section is well characterised by the inflorescence and habit; but they are all too nearly connected with each other in essential characters to be generically separated.

CONSPECTUS SPECIERUM.

SECT. I. MARRUBIASTRUM. *Frutices sæpius candidissimi. Folia floralia herbacea, infima caulinis subconformia, superiora minuta—(Canarienses.)*

Caulis et foliorum lana densa, nivea.

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| Verticillastri distantes. Racemi paniculati | . 1. S. MASSONIANA. |
| Verticillastri distantes. Racemi simplices | . 2. S. CANDICANS. |
| Verticillastri densissime imbricato-spicati | . 3. S. MACROSTACHYA. |
| Caulis lana subfloccosa. Folia velutino-lanata, flavescencia vel vix canescentia | . 4. S. CANARIENSIS. |

SECT. II. EMPEDOCLEA. *Suffrutices vel herbæ perennes. Folia floralia integerrima, flores amplexentia.*

Folia basi angustata.

Folia floralia superiora calyces vix æquantia.

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| Folia floralia dense albo-lanata | . 5. S. SYRIACA. |
| Folia floralia rigida, pilosa | . 8. S. LIBANOTICA. |

Folia floralia acuminata, calyces superantia.

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| Folia floralia submembranacea, viridia, venoso-reticulata. Verticillastri distantes | . 7. S. SICULA. |
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| Folia floralia sublanata, canescentia vel flavescencia. Verticillastri approximati | . 6. S. TAURICA. |
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Folia basi cordato-amplexicaulia.

Folia caulina ovato-lanceolata, subdentata; floralia patentia, verticillastro longiora.

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| Folia floralia latissima, submembranacea. Dentes calycini lanceolati | . 11. S. PERFOLIATA. |
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| Folia floralia coriacea, nervis elevatis. Dentes calycini subulati | . 9. S. PULLULANS. |
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Folia caulina lanceolata, integerrima; floralia verticillastos amplexentia, et iis subæquilonga

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| . 10. S. DURA. |
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Species non satis notæ : 12. S. DISTANS ; 13. S. RUGOSA ; 14. S. ÆGYPTIACA.

SECT. III. EUSIDERITIS. *Suffrutices vel frutices. Folia floralia bracteiformia flores amplexantia, margine spinoso-dentata.*

Verticillastri in spica terminali densa vel interrupta approximati.

Folia caulina dentata.

Spica tetragona, densa. Folia floralia corollas excedentia.

Folia serrato-crenata, mutica . . . 16. S. OVATA.

Foliorum apices et serraturæ spinosomucronatæ . . . 17. S. SPINOSA.

Spica subteres, basi sæpe interrupta. Folia floralia calyces æquantia.

Folia ad axillas fasciculata. Corollæ albæ . . . 20. S. LEUCANTHA.

Folia non fasciculata. Corollæ flavescens.

Frutex 5-pedalis. Verticillastri villosissimi. Folia glabra, siccitate nigrescentia . . . 22. S. ARBORESCENS.

Suffrutex humilis. Verticillastri villosuli. Folia viridia, glabra vel villosa . . . 19. S. SCORDIODES.

Folia caulina integerrima.

Caulis basi albo-lanatus. Folia linearia, obtusa . . . 27. S. TRAGORIGANUM.

Caulis basi villosus vel glaber. Folia ovata, oblonga, vel acute linearia.

Folia floralia vix calyce longiora. Spica subteres . . . 19. S. SCORDIODES.

Folia floralia calyce subduplo longiora. Spica tetragona . . . 21. S. PUNGENS.

Verticillastri omnes distantes.

Verticillastri villosissimi.

Frutex elatus . . . 22. S. ARBORESCENS.

Suffrutex humilis.

Folia vix pollicaria, inciso-dentata . . . 24. S. HIRSUTA.

Folia 2-3-pollicaria, obtuse crenata . . . 15. S. GRANDIFLORA.

Verticillastri glabri, albo-lanati vel villosuli.

Folia caulina dentata.

Folia inciso-dentata, mutica . . . 25. S. CHAMÆDRIFOLIA.

Folia margine dentato-spinosa . . . 18. S. ILICIFOLIA.

Folia caulina integerrima, linearia.

Calyces virides . . . 26. S. VIRGATA.

Calyces albo-lanati . . . 28. S. INCANA.

Species non satis notæ : 23. S. CAVANILLESII ; 29. S. GLAUCA ; 30. S. FÆTENS ; 31. S. LASIANTHA ; 32. S. SERICEA ; 33. S. CRISPATA.

SECT. IV. HESIODIA. *Herbæ annuæ. Folia floralia caulinis subconformia minora.*

Dens calycis supremus infimis duplo et ultra latior.

Calyx molliter lanatus. Corolla apice nigricans . . . 34. S. LANATA.

Calyx villosulus. Corolla flavescens, immaculata . . . 35. S. ROMANA.

Dentes calycini latitudine subæquales, superiores basi subconnati.

Calyx albo-lanatus . . . 37. S. REMOTA.

Calyx patentim pilosus . . . 36. S. MONTANA.

Species dubia : 38. S. ROSEA.

SECTIO I. MARRUBIASTRUM.

Marrubiastrum. *Mæneh. Meth.* 391.

Frutices molliter lanati, sæpe nivei. Folia floralia herbacea, integerrima vel crenata, infima caulinis subconformia at multo minora, suprema minuta.

The species of this section are all from the Canary Islands.

1. *S. MASSONIANA*, fruticosa, lana adpressa densa candida, foliis oblongis basi subcordatis crassis subtus vel utrinque niveo-lanatis, racemis paniculatis, verticillastris paucifloris.

Hab. in ins. Madera *Masson!* (v. s. sp. in herb. *Lambert, Smith, et Banks.*)

Affinis *S. cretica*, sed folia angustiora vix crenata, in pagina superiore minus lanata. Verticillastri irregulariter 4-10-flori, interrupte racemosi, racemis divaricato-ramosis. Folia floralia minora. Bracteæ evidentiores. Calyces lana densissima obtecti.

2. *S. CANDICANS* (Ait. ! Hort. Kew. 2. 289), fruticosa, lana adpressa densa candida, foliis ovatis subcrenatis basi truncatis cordatis crassis utrinque adpresse lanatis subtus niveis, racemis simplicibus, verticillastris paucifloris.

S. cretica. *Linn.!* *Spec.* 801.

Hab. in ins. Teneriffa *Christian Smith!* nec verosimiliter in Creta. (v. s. sp. in herb. *Lambert, et s. c. in herb. Linn. et Banks.*)

Frutex habitu *S. canariensis*, sed totus lana nivea, densa, implexa, obtectus; nervi foliorum omnino sub ea reconditi. Folia 1-2-pollicaria, obtusissima, irregulariter vel obscure crenata; floralia infima subconformia, superiora parva, oblongo-lanceolata, calyces parum excedentia, at omnia petiolata, crassa, et niveo-lanata. Verticillastri plerumque 10-flori, inferiores distantes, superiores approximati. Bracteæ parvæ, setacæ, sub lana reconditæ. Calyces subsessiles, subreflexi, fere *Stachydum* sectionis *Ambleiæ*, crassi, nervis sub lana reconditis, dentibus brevibus obtusis. Corollæ vix calycem excedentes.

I have adopted Aiton's name in preference to Linnæus's, the latter being apparently founded on a mistake.

3. *S. MACROSTACHYOS* (Poir. Dict. Suppl. 2. 381), fruticosa, lana adpressa densa candida, foliis ovatis basi subcordatis supra viridibus subtus candidissimis, verticillastris multifloris, in spica crassa densissima imbricatis.

Hab. in ins. Canariensibus *Poiret, Masson!* (v. s. sp. in herb. *Banks.*)

Species pulchra. Caules lignosi, crassi, ramosi. Folia petiolata, cordata, crassa, rugosa, supra intense viridia et fere glabra, subtus candidissima, tomentosa, margine crenata, inferiora ampla subrotundata, superiora ovata obtusa, supra pubescentia. Spicæ rectæ, rigidæ, crassissimæ, densæ, 2-3-pollicares, subramosæ. Flores sessiles, et ita condensati ut verticilli nonnisi foliis floralibus e spica eminentibus distinguuntur. Calyces sub lana densa reconditi, breves, campanulati, dentibus parvis acutiusculis *S. canariensis*. Corolla calycem parum excedens.

4. *S. CANARIENSIS* (Linn. ! *Spec.* 801), fruticosa, villosa-lanata, foliis ovatis crenatis basi cordatis crassis rugosis subtus venosis utrinque

velutino-lanatis, racemis simplicibus, verticillastris multifloris distinctis.

Marrubiastrum tomentosum. *Mæench. Meth.* 391.

S. canariensis. *Jacq. ! Hort. Vind.* 3. 18. t. 30.

Hab. in ins. Teneriffa *Christian Smith !* et Madera *Willdenow.* (*h. s. c. et v. s. sp. in herb. Lambert.*)

Frutex pluripedalis. Rami crassi, obtuse tetragoni, uti petioli lana densa subfloccosa albo-flavescente vestiti. Folia 2-4-pollicaria, lana paginæ superioris densa velutina, inferioris subfloccosa flavescente, superiora minora; floralia infima subconformia flores excedentia, superiora bractæformia calycibus breviora. Verticillastri subglobosi, 20-30-flori, densi, omnes distincti, inferiores distantes. Bractæ numerosæ, subulatæ, calycem æquantes. Calyces virides, villosi, tubulosi, parum incurvi, dentibus superioribus parum majoribus, omnibus acutis, apice rigidis at non pungentibus. Corollæ flavescentes, vix dentes calycinis excedentes; tubus exannulatus; labium superius breve, latum, erectum, planum, emarginato-bifidum; inferius parum longius, patens. Stamina superiora brevissima, antheris bilocularibus, inferiora duplo longiora (at tubo inclusa), antheris dimidiatis. Stylus in hortis sæpe 4-5-fidus evadit, ovario 8-10-partito.

SECTIO II. EMPEDOCLEA.

Empedoclea. *Raf. Caratt. sec. Guss.*

Suffrutices vel herbæ perennes, basi lanati. Folia floralia integerrima, flores sessiles amplexentia.

The *Empedocleæ* are all Mediterranean, extending from Spain to the Black Sea.

5. *S. SYRIACA* (Linn. ! *Spec.* 801), suffruticosa, albo-lanata, foliis crassis oblongo-lanceolatis basi angustatis infimis crenulatis, floralibus late cordatis integerrimis calyces æquantibus, calycibusque lana densa albida omnino obtectis.

S. syriaca. *Reichb. Icon. Bot. Exot.* 1. 42. t. 57. *Sibth. et Sm. ! Fl. Gr.* 6. 41. t. 550.

Hab. in ins. Cretæ montibus et in Palæstina *Tournefort ! Sieber ! Sibthorp ! &c.* (*h. s. sp.*)

Planta tota lana densa albida interdum subsericea minime floccosa obsecta. Caules basi lignosi, ramosi, dense foliosi. Rami erecti vel adscendentes, circiter pedales, foliis distantibus. Folia integerrima vel minute crenulata, nervis sub lana reconditis; floralia sæpius obtusa calycibus subbreviora, rarius breviter acuminata calyces subsuperantia, at constanter lana densa obsecta. Verticillastri 6-10-flori, distantes. Calycis dentes vix spinosi æquales. Corolla calyce vix duplo longior, flava, extus sericeo-villosa; tubus intus obscure annulatus; labium superius bifidum. Staminum inferiorum antheræ biloculares, at superioribus minores: an steriles?

6. *S. TAURICA* (Bieb. *Fl. Taur.-Cauc.* 2. 43), suffruticosa, albo-lanata, foliis crassis oblongo-lanceolatis spathulatisve basi angustatis infimis crenulatis utrinque dense albo-lanatis, floralibus latissime cordatis acuminatis integerrimis venoso-reticulatis laxè lanatis subviridibus, dentibus calycinis lanceolatis muticis.

S. taurica. *Reichb. Icon. Bot. Eur.* 4. 61. t. 384. *Bieb. Cent. Pl. Rar.* 1. t. 39.

S. syriaca. *Pall. Ind. Taur. non Linn.*

S. incana. *Habl. Taur.* 148. *non Linn.*

Hab. in apricis montibusque calcareis Tauriæ frequens *Steven!*
Bieberstein, Durville, &c. (h. s. sp. comm. a cl. Endlicher.)

Valde affinis *S. syriacæ*, et forsan ejus mera varietas, at differre videtur lana partis inferioris breviori candidiore et magis adpressa, verticillastris præsertim superioribus approximatis, foliis floralibus majoribus longius acuminatis rigidis, uti calyces tomento tenui laxa pubescentibus nec dense lanatis, dentibus calycinis latioribus. Corolla brevior, labiis latioribus.

7. *S. SICULA* (Ucria ex Guss.! *Prod. Fl. Sicul.* 2. 85), suffruticosa, albo-lanata, foliis crassis oblongo-spathulatis basi angustatis inferioribus crenulatis utrinque lanatis, floralibus latissime cordatis acuminatis integerrimis venoso-reticulatis laxè lanatis viridibus calyces subduplo superantibus, dentibus calycinis lanceolato-subulatis acutissimis subspinescentibus.

S. brutia. Ten.! Fl. Nap. 2. 16.

Empedoclea montana. Raf. Caratt. 78.

S. decumbens. Mæench. Meth. 390.?

Navicularia Heisteri. Fabric.?

Hab. in Europa australi: in Hispania *Pavon!* Sicilia *Gussone!*
Italia australi *Tenore!* (*h. s. sp. comm. a cl. Gussone.*)

Hæc etiam species vix a *S. syriaca* distinguitur. Caulis altior est et minus lanata. Folia longiora, tenuiora, lana laxa subsericea. Verticillastri et calyces majores. Folia floralia majora et tenuiora quam in *S. taurica*, molliter villosa vel laxissime sublanata.

8. *S. LIBANOTICA* (Labill. *Ik. Pl. Syr. Rar.* 4. 13. t. 8).

Hab. in monte Libano *Labillardière.*

“*S. suffruticosa*, ramis simplicissimis glabris, foliis obovato-oblongis serratis tomentosis, verticillis distantibus, bracteis ovatis acuminatis nervoso-reticulatis.

“Caulis ramive ex plantæ basi enati simplicissimi, recti, glabri, pedales et ultra. Folia inferiora obovato-oblonga, in petiolos subdilatatos attenuata, nervoso-reticulata, serrata, superiora lanceolata sessilia, adultiora multo minus cæteris tomentosa. Verticilli inter se $1\frac{1}{2}$ -pollicem et ultra distantes, 4-8-flori, bracteis calycis longitudine, subpilosis. Calyx supra præsertim pilosus, laciniis 5 subæqualibus mucronatis. Corolla sulphurea, extus magis quam intus pilosa; labii inferioris lacinia media integerrima; tubo calycis longitudine.”—*Labill. l. c.*

9. *S. PULLULANS* (Vent. *Hort. Cels.* t. 98), suffruticosa, caule basi sublanato superne viridi pubescente divaricato-ramoso, foliis ovato-lanceolatis semi-amplexicaulibus rigidis venoso-reticulatis utrinque viridibus pubescentibus vel lana laxissima canescentibus, floralibus late cordatis acuminatis flores duplo superantibus, calycis viridis dentibus subulatis spinosis.

Hab. in Syriæ montibus prope Jerusalem et Nazareth *N. Bové!*
(*h. s. sp. a cl. Bové lect.*)

Caulis rigidi, duri, obtuse tetragoni. Folia caulina 2-3-pollicaria, superiora et floralia 1-1½-pollicaria, basi dilatata, cordata, omnia acuta, inferiora apice paucidentata; floralia sæpius integerrima. Verticillastri distantes, 6-10-flori. Calyces erecti, subsessiles, rigidi, pubescentes, fauce intus dense pilosa, dentibus brevibus. Corolla extus villosa. Staminum inferiorum antheræ biloculares, loculis parvis subparallelis cassis? superiorum antheræ biloculares, loculis oblongo-linearibus divaricatis.

This species comes very near the *S. distans* and *S. libanotica*, if, indeed, it be not identical with both. It has not, however, the *folia integerrima*, or the *corollæ tubus*

calyce longior, of Willdenow's description; and the branched pubescent stem, acute leaves, and subulate teeth of the calyx, do not agree with Labillardière's figure.

10. *S. DURA*, suffruticosa, caule albo lanato, foliis sessilibus semi-amplexicaulibus lanceolatis acutis integerrimis rigidis utrinque cano-villosis sublanatis, floralibus late cordatis calyces æquantibus integerrimis acuminatis, calycis molliter villosi dentibus brevibus muticis.

Hab. . . . (v. s. in herb. J. E. Smith.)

Habitu *S. syriacæ* affinis, sed foliorum forma diversa, tota planta minus lanata, et verticillastri numerosiores remotiores. Folia 1-2-pollicaria, crassa, subpungentia. Racemi longi, simplices. Verticillastri subsexflori. Folia floralia valde concava calyces amplectentia, acumine eos paullo superante, cæterum breviora.

11. *S. PERFOLIATA* (Linn.! Spec. 802), suffruticosa basi vix lanata, caule piloso viridi, foliis semiamplexicaulibus ovato-oblongis lanceolatisve utrinque subviridibus molliter villosis subvenosis, floralibus latissime cordatis acuminatis reticulato-venosis utrinque viridibus flores duplo superantibus, calycis viridis pilosi dentibus lanceolato-subulatis acutissimis vix spinosis.

Hab. in Europa australi: in Hispania *Pavon!* Sicilia *Gussone*, Oriente *Linnæus*. (h. s. c.)

Rami e basi sublignoso erecti, 1-1½-pedales, ramis paucis divaricatis. Folia 1½-2-pollicaria, integerrima vel pauci-dentata, basi sæpe connata; floralia patentia acutissima basi cymbiformia, valde dilatata. Verticillastri omnes distincti, subdistantes, 6-15-flori. Calyces sessiles, erecti, tubulosi. Corolla flava, dentes calycinos vix excedens.

12. *S. DISTANS* (Willd. Spec. 3. 66).

Hab. in Oriente? *Willdenow*.

"*S. suffruticosa*, incana, foliis lanceolatis integerrimis acutis, floribus verticillato-spicatis, verticillis distantibus, bracteis cordatis acuminatis mucronatis nervoso-reticulatis.

"Accedit ad *S. tauricam*, sed diversa foliis acutis minus tomentosis integerrimis, caule tantum villoso, verticillis remotissimis, bracteis fere glabris mucronatis, corollæ tubo calyce longiore, lacinia intermedia labii inferioris obtusa nec emarginata. Folia radicalia non vidi, cæterum videtur habitu a *S. taurica* diversissima."—*Willd. l. c.*

13. *S. RUGOSA* (Poir. Dict. Suppl. 2. 383).

S. rhytidea. *Spreng. Syst.* 5. 644.

Hab. in Syria *Labillardière*. (*Poiret*.)

"*S. suffruticosa*, foliis ovato-lanceolatis obtusis rugosis subdentatis incano-tomentosis, verticillis distantibus, bracteis integris, calycibusque acuminatis apice tomentoso-pilosis, ramis strictis.

"Caulis graciles, 8-10-pollicares, duri, glabri. Rami pauci, rigidi, glabri. Folia distantia, sessilia, pollicaria et ultra, dentibus obscuris, nervis prominentibus, juniora tomento albo in vetustioribus evanido, induta. Bracteæ (folia floralia?) lata, concava. Calyces bracteis longiores, dentibus rectis spinosis."—*Poir. l. c.*

14. *S. ÆGYPTIACA* (Pers. Syn. 2. 117).

Hab. in Ægypto *Herb. Jussieu*. (*Persoon*.)

"*S. foliis ovatis serratis incanis venis subtus prominulis, caule tereti albo-tomentoso, verticillis folio subjectis. Caulis altus.*"—*Pers. l. c.*

SECTIO III. EUSIDERITIS.

Suffrutices villosi vel pilis mollibus sublanati, rarius glabrati. Folia floralia bractæformia, sessilia, latissime cordata, flores amplexantia venoso-reticulata, margine spinoso-dentata. Calycis dentes æquales, spinosi. Corolla dentes calycinos parum excedens.

The species of this section run very much into one another, and, being chiefly confined to Spain, from whence specimens are rarely to be obtained, I have not had materials sufficient to ascertain the value of a great number of them.

15. *S. GRANDIFLORA* (Salzm.! Pl. Ting. Exs.), suffruticosa, caule laxè lanato, foliis oblongis obtusis crenatis basi longè angustatis molliter villosis, floralibus latissimis flores excedentibus molliter villosis, apice obtuse acuminatis basi margine subspinoso-denticulatis, verticillastris distantibus.

Hab. in collibus Tingitanis *Salzmann!* (*h. s. sp. in herb. Lindley.*)

Habitus fere *S. siculæ*, et, foliis floralibus vix spinoso-dentatis, inter *Empedocleas* et *Eusideritides* media. Caulis 1-1½-pedalis, pilis longis mollibus laxè lanati. Folia utrinque viridia. Verticillastri densi, 10-15-flori. Calyx elongato-campanulatus, molliter villosus, dentibus lanceolatis breviter spinulosus. Corolla magnitudine fere *Stachyos rectæ*, pallide lutea; tubus intus annulatus. Stamina inferiorum antheræ fertiles, loculis subparallelis, superiorum loculi divaricati.

16. *S. OVATA* (Cav. Ic. Rar. 1. 36. t. 48), suffruticosa? viridis, glabra vel subvillosa, foliis oblongo-ovatis obtusis subserratis, floralibus latissimis flores excedentibus glabris vel margine villosis pauciveniis margine dentato-spinosis, verticillastris approximatis spicatis.

Hab. in Hispania *Pavon!* in Biscaya *Cavanilles.* (*v. s. sp. in herb. Lambert.*)

Caules vix pedales, tetragoni, subscabri, pilis paucis in parte superiore villosuli. Folia inferiora longè petiolata, 1-1½-pollicaria, petiolo basi caulem breviter amplexante, radicalia numerosa, in cespitem congesta, caulinis breviora atque latiora; superiora sessiliora, angustiora, omnia paucivenia glabra et lucida, vel pilis paucis villosula; floralia infima ovato-lanceolata, superiora latiora quam longa, forma et proportionè ut in *Empedocleis*, sed margine dentibus in spina productis notata. Spica densa, tetragona, triuncialis. Verticillastri sexflori. Flores sessiles. Calyx tubuloso-campanulatus, viridis, pilis paucis villosus, dentibus lanceolato-subulatis pungentibus, fructifer fauce villosa. Corolla luteo-albicans, labium superius integrum, inferioris lacinia media subrotunda crenata.

17. *S. SPINOSA* (Lam. Dict. 2. 169), suffruticosa, molliter villosa, subviridis, foliis oblongo-lanceolatis mucronatis margine serratis subspinosis, floralibus latis acuminatis flores excedentibus margine dentato-spinosis, omnibus sericeo-villosis, verticillastris approximatis spicatis.

S. serrata. Lag. Nov. Gen. et Sp. 18.

Hab. in Hispania *Pavon!* in Barbaria *Vahl.* (*v. s. sp. in herb. Lambert.*)

Caules basi ramosi. Rami rigidi, erecti, stricti, subsimplices, pilis mollibus erecto-patentibus villosi. Folia inferiora basi in petiolum brevem angustata, sæpe obtuse crenata, extremitate et crenaturis nonnullis aristulis pungentibus mucronatis, superiora longiora sessiliora, spinulis validioribus; floralia sessilia, ovata vel ovato-lanceolata, acuminata, apice et dentibus longè spinescentibus, omnia rigidia, subtus venosa,

utrinque pilis mollibus subsericeis vestita, juniora sæpe canescentia. Flores fere *S. ovata*.

18. *S. ILICIFOLIA* (Willd. Enum. Hort. Berol. 606), suffruticosa, glabriuscula, foliis oblongo-lanceolatis margine spinoso-serratis sub-incisis, floralibus latis acuminatis flores excedentibus margine dentato-spinosis omnibus glabriusculis, verticillastris omnibus remotis.

Hab. in Oriente *Willdenow*? in Hispania? *Gouan*! (v. s. sp. in *herb. Hooker*.)

Rami erecti, stricti, pedales et ultra, vix tetragoni, fere glabri. Folia 1-2-pollicaria, inferiora petiolata, superiora sessilia, amplexicaulia, supra subbullata, subtus venosa, utrinque viridia, glabra, vel pilis paucis hirta, apice dentibusque in spina abeuntibus; floralia longe acuminata, basi dentata. Verticillastri multiflori, densi, sæpius 1½-2-poll. distantes. Calyces ovati, sessiles, extus et ad os pilis longis molliter villosi; dentes subulato-spinosi. Corollæ parvæ.

19. *S. SCORDIOIDES* (Linn.! Spec. 803), suffruticosa, ramis decumbentibus adscendentibus vel suberectis laxè villosis vel rarius glabratibus, foliis ovatis oblongis vel oblongo-linearibus basi angustatis inciso-dentatis muticis vel rarius subintegerrimis piloso-lanatis glabratisve, floralibus latissimis calyces æquantibus vel vix longioribus margine spinoso-dentatis, verticillastris villosulis rarius glabratibus interrupte vel dense spicatis.

α grandiflora, ramis suberectis rigidis, foliis oblongis viridibus villosis inciso-dentatis, verticillastris magnis subinterrupte spicatis.

S. subspinosa. Cav.! *Io. Rar.* 3. 5. t. 209.

S. spinosa. Benth.! *Cat. Pl. Pyr.* 121. non Lam.

β communis, ramis erectiusculis vel adscendentibus, foliis obovato-oblongis inciso-dentatis villosis junioribus canescentibus, verticillastris spinosissimis interrupte spicatis.

γ elongata, ramis elongatis adscendentibus vel erectis, foliis oblongis vel oblongo-lanceolatis inciso-dentatis glabriusculis viridibus, verticillastris interrupte vel rarius dense spicatis.

S. hyssopifolia. Auct. plur.

S. fœtida. Poir. *Dict. Suppl.* 2. 382.

S. hirta. Roth. *Catal.* 1. 67.

S. hirtula. Brot. *Fl. Lusit.* 1. 161?

S. fruticulosa. Pourr. *Act. Acad. Tolos.* 3. 328.

δ alpina, ramis brevibus decumbentibus, foliis oblongo-ovatis paucidentatis cano-villosis vel demum glabratibus, verticillastris dense vel subinterrupte spicatis.

S. alpina. Vill. *Fl. Delph.* 2. 373.

S. pyrenaica. Poir. *Dict. Suppl.* 2. 383.

S. crenata. Lapeyr.! *Hist. Abr. Pl. Pyr.* 331.

ε glabrata, ramis adscendentibus, foliis oblongo-ovatis paucidentatis integerrimisve glabriusculis, verticillastris dense vel subinterrupte spicatis.

S. hyssopifolia. Auct. plur.

ζ angustifolia, foliis oblongo-linearibus glabriusculis.

S. hyssopifolia. Linn. *Spec.* 803.

„ *incana* (Benth. Cat. Pyr. 121), foliis oblongo-linearibus cano-villosis.

S. pyrenaica. Endress. Pl. Exs. Un. Itin. Wurtemb.

Hab. in Europa mediterranea occidentali: in Hispania *Pavon!* Gallia mediterranea! Pedemontio! Helvetia australi *Reichenbach*, Sicilia *Gussone*; α in rupestribus Pyrenæorum orientalium prope Bagnols! et in Hispania; β in siccis aridis Galliæ mediterraneæ et Hispaniæ; γ in hortis communis, in Hispaniæ montosis sylvestris? δ et ϵ in Pyrenæis editioribus et alpinis Pedemontanis; ζ et „ in Pyrenæis orientalibus. (*v. v. et h. s. sp.*)

Species statura et foliorum forma valde variabilis. Caules basi cæspitoso-ramosi. Rami in herbidis montanis basi decumbentes, sæpe elongati; in siccis aridis erecti, semipedales, glabri, pubescentes vel in parte superiore villosi. Folia nunc glabra utrinque viridia, nunc pilis longis adpressis plus minusve canescentia, sæpius sessilia vel breviter petiolata, semipollicaria vel vix pollicaria, venosa, sæpe rugosa, dentibus paucis irregularibus obtusis muticis vel rarius mucronulatis. Spicæ 1-3-pollicares. Verticillastri sæpius distincti sed approximati, rarius omnes imbricati vel inferiores subdistantes. Folia floralia infima, præsertim in exemplaribus cultis, caulinis subconformia, cætera omnia vix acuminata, orbiculata, amplexicaulia, flavescenti-viridia, reticulato-venosa, laxè villosula, margine dentibus in spinam longam abeuntibus. Bracteæ subnullæ. Calyces subcampanulati, villosi, dentibus spinescentibus tubum subæquantibus. Corolla flavescentia, labio superiore pallidiore vel albo, dentes calycinis parum excedens; tubus exannulatus, ad insertionem staminum villosus; limbus extus glaber. Antheræ staminum inferiorum dimidiatæ.

20. *S. LEUCANTHA* (Cav. Ic. Rar. 4. 2. t. 304), suffruticosa, ramis erectis strictis tomentosis, foliis linearibus subdentatis glabriusculis ad axillas fasciculatis, spicis interruptis gracilibus glabriusculis, foliis floralibus latissimis calycem æquantibus margine spinoso-dentatis.

Hab. in Hispaniæ regno Valentino *herb. Smith! Cavanilles*, in locis aridis calcareis in Urchillo monte alibique circa Orcelim *Lagasca*. (*v. s. sp. in herb. Sir J. E. Smith.*)

A *S. scordifoliæ* varietatibus angustifoliis differt foliis multo minoribus fere glabris, ad axillas fasciculatis, et statura minore graciliore. Descriptio Lagascanæ (Nov. Gen. et Sp. 18) vix hanc speciem refert.

21. *S. PUNGENS*, suffruticosa, ramis erectis strictis pubescentibus, foliis linearibus acutissimis pungentibus integerrimis glabris, spicis densis tetragonis, foliis floralibus latissimis calyces subduplo superantibus margine longe spinoso-dentatis.

Hab. in Hispania? *Herb. Miller!* (*v. s. sp. in herb. Banks.*)

Spica fere *S. serratæ*; habitu ad descriptionem *S. fætentis* accedit, sed foliis floralibus diversa.

22. *S. ARBORESCENS* (Salzm.! Pl. Exs.) suffruticosa, ramis erectis subbifariam lanuginosis, foliis oblongo-lanceolatis inciso-dentatis glabris, floralibus latissimis calyces æquantibus reticulato-venosis sublanatis margine subspinoso-dentatis, verticillastris multifloris hirsutis distinctis approximatis subspicatis.

Hab. in Hispaniæ monte Gibraltarico *Broussonet! Salzmann!* (*h. s. sp. comm. a cl. Bouschet-Doumeng.*)

Frutex 5-pedalis. Rami juniores acute tetragoni. Folia subsessilia vix pollicaria, basi angustata, versus apicem acute dentata, læviuscula, siccitate nigrescentia.

Spicæ terminales, 3-6-pollicares, pallide virides et villosæ. Verticillastri 6-10-flori, globosi. Bracteæ orbiculatæ, reticulato-venosæ. Calyces campanulato-dentati, lati, uti dentes foliorum floralium breviter mucronati vix spinosi. Corolla pallide lutea.

23. *S. CAVANILLESII* (Lag. Nov. Gen. et Sp. 18).

S. scordioides. Cav. *Ic. Rar.* 4. 2. t. 303. non Linn. sec. Lagasca.

Hab. in Hispaniæ locis montosis regni Valentini circa Matritum et in veteri Castella Lagasca.

“*S. subincana*, foliis lanceolatis dentato-serratis, spica elongata, verticillis distinctis, bracteis cordato-orbiculatis spinoso-dentatis.

“Caulis tomentosus nec hirtus. Folia subtus præcipue tomentosa, magis minusve incana. Corolla flava.”—Lag. *l. c.*

24. *S. HIRSUTA* (Linn. ! Sp. 803), suffruticosa, ramis decumbentibus piloso-hirsutissimis, foliis oblongis ovatis cuneatisve inciso-dentatis basi angustatis hirsutis, floralibus latissimis calyces æquantibus margine subspinoso-dentatis, verticillastris globosis hirsutissimis omnibus remotis.

S. hirsuta. Cav. *Ic. Rar.* 4. 1. t. 302.

S. scordioides, var. *lanata* et *latifolia.* Benth. *Cat. Pl. Pyr.* 121.

S. tomentosa. Pourr. *Act. Acad. Tolos.* 3. 328.

S. hispanica. Mill. ! *Dict. n.* 7.

Hab. in Europa mediterranea occidentali: in Hispania Pavon! Catalonia! Arragonia! Gallia Narbonnensi! Occitania! Galloprovincia! et Pedemontio Reichenbach. (*v. v. et h. s. sp.*)

Foliorum forma fere *S. scordioidis communis*, a qua differt habitu et hirsutie. Verticillastri sæpius ultra-10-flori, plus pollice distantes. Folia floralia vix spinosa. Flores *S. arborescentis*.

25. *S. CHAMÆDRYFOLIA* (Cav. *Ic. Rar.* 4. 1. t. 301), suffruticosa, ramis adscendentibus villosulis, foliis oblongis cuneatisve inciso-dentatis basi angustatis subvillosis, floralibus latissimis calyces æquantibus margine subspinoso-dentatis, verticillastris glabriusculis villosulisve omnibus remotis.

Hab. in Hispania Pavon! in regno Valentino inter Bocayrent et Baneres Cavanilles. (*v. s. sp. in herb. Lambert.*)

A *S. hirsuta* vix nisi glabritie differt. Verticillastri sæpius minores. Folia floralia majora, in verticillastro fructifero rarius reflexa.

26. *S. VIRGATA* (Desf. *Fl. Atl.* 2. 15. t. 125), suffruticosa, ramis adscendentibus vel suberectis strictis tomentoso-pubescentibus, foliis oblongo-linearibus integerrimis vel rarius paucidentatis basi angustatis, floralibus latissimis calyces æquantibus margine spinoso-dentatis, verticillastris villosulis omnibus distantibus.

S. incana. Cav. *Ic. Rar.* 2. 69. t. 186.

S. virgata. Desf. *Fl. Atl.* 2. 15. t. 125.

S. angustifolia. Lam. *Dict.* 2. 168. Lag. ! *Nov. Gen. et Sp.* 18.

S. linearifolia. Lag. *Nov. Gen. et Sp.* 18.?

Hab. in Hispania mediterranea Cavanilles! L. Dufour! Lagasca! Pavon! &c., et in arenosis prope Mascar Africæ borealis Desfontaines. (*v. s. sp. in herb. plur.*)

Affinis *S. scordioidis*, var. *angustifoliæ* et *S. incanæ*. A priore differt foliis fere semper sessilibus angustioribus et rarius dentatis, et verticillastris remotis. A *S. incana* caulibus minus tomentosis, foliis acutioribus, floralibus ut in *S. scordioidi* calyces æquantibus vel superantibus, margine dentibusque calycinis spinosis.

27. *S. TRAGORIGANUM* (Lag. ! Nov. Gen. et Sp. 18), suffruticosa, ramis adscendentibus vel suberectis tomentoso-lanatis, foliis oblongo-linearibus obtusis integerrimis basi angustatis sublanatis, floralibus latissimis calyces æquantibus spinoso-dentatis, verticillastris villosulis interrupte spicatis.

S. suffruticosa. Mill. Dict. n. 4. ?

Hab. in Hispaniæ regnis Murciæ et Valentiniæ *Lagasca* ! Creta *Sieber* ! (h. s. sp. comm. a cl. Endlicher.)

A *S. scordioidi* *incanæ* differt caulibus basi albo-lanatis et foliis longioribus planis constanter integerrimis ; a *S. virgata* verticillastris approximatis ; a *S. incana* foliis floralibus majoribus calycibusque magis spinosis, calycibus glabris villosulisve nec albo-lanatis.

28. *S. INCANA* (Linn. ! Spec. 802), suffruticosa, ramis albo-lanatis tomentosisve, foliis oblongo-linearibus obtusis integerrimis utrinque præsertim junioribus albo-lanatis, floralibus latissimis subpalmatifidis calyce brevioribus subspinosis, verticillastris distantibus, calycibus albo-lanatis.

Hab. in Hispania *Pavon* ! &c. (v. s. sp. in herb. plur.)

Habitus fere *Lavandulæ Spicæ*. Lana foliorum juniorum et ramorum partis inferioris densa nivea. Folia $\frac{1}{2}$ -1 $\frac{1}{2}$ -pollicaria, sessilia, basi vix angustata, superiora remota, parva ; floralia constanter calycibus breviora vix spinosa. Verticillastri subsexflori. Corolla lutea.

29. *S. GLAUCA* (Cav. Ic. Rar. 2. 68. t. 185).

Hab. in Hispaniæ montibus Orcellitanis *Cavanilles*.

“ *S. radice perenni, foliis ovato-linearibus patulis glaucis subvillosis.*

“ *Radix durissima, lignosa, multicaulis. Caules annui, semipedales, tetragoni, basi prostrati et ramosi, postea erecti, glauci, ut et tota planta. Folia radicalia ovato-oblonga, caulina sessilia et subconnata, sublinearia, brevia, patula. Flores verticillati, verticillis sexfloris, horum quodlibet fulcitum bracteis duabus ovatis 3-5-dentatis, Calyx tubulosus, dentibus æqualibus. Corolla dilute rosea, labium superius lineare emarginatum.*”—Cav. l. c.

30. *S. FÆTENS* (Lag. Nov. Gen. et Sp. 18).

Hab. in Hispaniæ regno Granatensi, et prope Nijar oppidum *Lagasca*.

“ *S. suffruticosa, foliis linearibus glabris acutis, spicis densis, calycibus frutescentibus fauce barbatis.*

“ *Suffrutex sesquiulnaris, caule ramisque virgatis junciformibus glabris. Pedunculi villosi. Spicæ cylindricæ, 1 $\frac{1}{2}$ -5 poll. longæ, verticillis 12-24 et ultra, dense imbricatis. Bractææ ovatæ, subcordatæ, profunde inciso-serratæ, dentibus subulato-aristatis, verticillo breviores. Calycis dentes subulato-aristati, faux pilis longis dense barbata. Corolla longitudine calycis, alba.*”—Lag. l. c.

31. *S. LASIANTHA* (Pers. Syn. 2. 117).

S. hispanica foetidissima, flore purpurascente, et coma canescente. *Tourn. Inst. R. Herb.* 192.

Hab. in Hispania *Herb. Jussieu (Persoon.)*

“*S. foliis ovatis dentibus spinulosis, verticillis villosissimis.*”—*Pers. l. c.*

32. *S. SERICEA* (*Pers. Syn. 2. 118.*)

Hab. in Hispania *Persoon.*

“*S. foliis ovato-linearibus albo-tomentosis trinerviis, bracteis spinulosis duris. Facie Gnaphalii.*”—*Pers. l. c.*

An *S. virgata*?

33. *S. CRISPATA* (*Willd. Enum. Hort. Berol. 606. in not.*)

Hab. ad Gibraltariam *Willdenow.*

“*S. hirsuta, foliis oblongo-cuneatis dentatis undulatis subtus tomentosis, bracteis orbiculatis spinoso-dentatis, verticillis distantibus.*

“*Folia admodum parva, undulata.*”—*Willd. l. c.*

SECTIO IV. HESIODIA.

Hesiodia, Burgsdorffia, et Marrubiastrum sp. Mænoch. Meth.

Herbæ annuæ, virides, pilis mollibus sublanatæ. Folia floralia caulinis subconformia at minora, subdentata dentibus muticis. Calyces dentibus nunc omnibus subæqualibus, tribus superioribus basi subconnexis obscure bilabiati, nunc dente supremo maximo, inferioribus omnibus multo angustioribus, inter sese æqualibus. Corolla dentibus calycinis plerumque brevior.

I cannot see the affinity between this section and the section *Acinos* of *Melissa* pointed out by Reichenbach (*Fl. Germ. Exc. 327*). The structure of the calyx, although said to be bilabiate in *S. romana*, is really quite different from that of *Acinos*, the greatest development being in the upper sepals of the *Sideritis*, in the lower ones of *Acinos*; and the shape of the corolla, and structure of the stamens and style, are almost as different as those of any two genera of *Labiata*.

34. *S. LANATA* (*Linn. ! Spec. 804*), annua, molliter piloso-lanata, foliis ovatis basi rotundatis, floralibus ovatis crenulatis, calycis molliter lanati subviridis subbilabiati dentibus lanceolato-subulatis acuminato-subspinosis supremo infimis duplo majore.

S. elegans. Murr. ! Nov. Comm. Gott. 1778. t. 4.

S. nigricans. Pers. Syn. 2. 117.

Marrubiastrum elegans. Mænoch. Meth. 391.

Hab. in regione Mediterranea orientali: in agro Cariensi *Sibthorp!* in arvis ins. Leri frequens *Durville*, in Creta *Sieber!* &c., prope Smyrnam *Fleischer!* (*h. s. sp.*)

*Herbæ semipedales vel vix pedales, habitu fere Stachyos annuæ. Caules erecti, subramosi, uti folia et præsertim calyces pilis longis mollibus vestiti. Folia 1-1½-pollicaria, utrinque viridia, petiolo sæpius dilatato; floralia subconformia gradatim minora sessiliora, integriora, acutiora, et densius lanata, omnia flores excedentia. Verticillastri sexflori, omnes distantes. Calyces breviter pedicellati, subreflexi, magnitudine *S. romanæ*, at dentes angustiores, minus inæquales. Corollæ dente calycis supremo breviores basi flavescentes, labiis apice nigricantibus. Filamenta pilosa.*

35. *S. ROMANA* (*Linn. ! Spec. 802*), annua, molliter piloso-sub-

lanata, viridis, foliis oblongo-ovatis, floralibus ovato-lanceolatis dentatis, calycis glabriusculi dentibus aristato-mucronatis supremo maximo ovato inferioribus lanceolato-subulatis.

S. romana. Cav. *Ic.* 2. 69. t. 187. *Sibth. et Sm. ! Fl. Gr.* 6. 43. t. 552.

S. spathulata. Lam. *Fl. Fr.* 2. 377.

Burgsdorffia rigida. Mœnch. *Meth.* 392.

Burgsdorffia romana. Hoffm. et Link. *Fl. Port.*

Hab. in regionis mediterraneæ cultis et ruderatis frequens : in Hispania *Pavon !* Gallia mediterranea ! Italia a Pedemontio ! ad regnum Neapolitanum *Tenore*, in Sicilia *Gussone*, in Barbaria prope La Calle *Desfontaines*, in ins. Melitæ et Leri *Durville*, in Græcia et insulis Archipelagi *Sibthorp !* in Syria prope Aleppo *Russell !* (v. v. et h. s. sp.)

Caules basi ramosi, erecti vel adscendentes, vix semipedales, uti folia et calyces pilis longis mollibus albidis vestiti, fere a basi floriferi. Folia infima petiolata, obtusa, crenata, basi angustata ; floralia sessiliora, acutiora, omnia flores excedentia, rugosa, utrinque viridia. Verticillastri sexflori, distantes. Bracteæ subnullæ. Calyces subsessiles, ovato-tubulosi, basi subgibbi, rigidi, 10-nervii, virides, dente supremo dilatato, inferioribus inter se æqualibus quadruplo latiore, omnibus arista subulata pungentibus, fauce intus villis clausa. Corolla flavescens, dentes calycinis subæquans, labio superiore brevi lato. Stamina superiora subsessilia, antheris bilocularibus ; inferiora elongata, filamentis pilosis, antheris dimidiatis.

36. *S. MONTANA* (Linn. ! Spec. 802), annua, adscendens, caule laxo piloso-lanato, foliis oblongo-lanceolatis basi angustatis, floralibus aristatis subdentatis, calycis viridis glabriusculi subbilabiati dentibus omnibus ovatis aristato-mucronatis demum patentibus.

S. montana. Jacq. *Fl. Austr.* 5. 16. t. 434.

Hesiodia bicolor. Mœnch. *Meth.* 392.

Hesiodia montana. Dumort. *Florul. Belg.* 44.

Hab. in Europæ australis, præsertim orientalis, et Asiæ mediæ arvis : in Hispania ? *Pavon !* Galliæ australis montosis *De Candolle*, Italia *Tenore*, Sicilia *Gussone*, Dalmatia *Unio Itin. Wurtemb. !* Syria prope Aleppo *Russell !* in Tauria *Durville, Bieberstein*, Caucaso *Bieberstein, Prescott !* &c., in Tschingistan deserti Soongoro-Kirghisico *Meyer. (h. s. sp.)*

Habitus fere *S. romanæ*, sed elatior, verticillastris numerosioribus et dentibus calycinis omnibus subæqualibus distinctissima. Dentes 3 superiores minus profunde fissi quam inferiores. Corollæ labium superius integrum subconcavum.

37. *S. REMOTA* (Durv. ! Enum. Pl. Archip. in Mem. Soc. Linn. Par. 322), annua, ramis elongatis divaricatis subvillosis lanatisve, foliis oblongo-lanceolatis basi angustatis, floralibus obtusis muticis subdentatis, calycis laxo lanati subbilabiati dentibus omnibus ovato-lanceolatis aristato-mucronatis demum patentibus.

S. lanata. Hochst. et Steud. ! *Pl. Exs. non Linn.*

S. montana. *Sibth. et Sm. ! Fl. Gr.* 6. 42. t. 551. non Linn.

Hab. in Archipelagi Græci insulæ Samos collibus *Durville !* in collinis et montosis Smyrnæ *Fleischer !* in maceriis et petrosis Græciæ *Sibthorp !* (h. s. sp. ex Un. Itin. Wurtemb., et v. s. sp. in herb. *Requien, Sibthorp, &c.*)

July 1834.

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S. montanæ valde affinis, sed distincta videtur habitu validiore et præsertim calycibus lana laxa alba nec pilis longis patentibus vestitis. Forsan *S. montanæ* mera varietas.

Species non satis nota.

38. *S. ROSEA* (Desf. Cor. Tour. in Ann. Mus. Par. 10. 302. t. 24).
Hab. in Egypto *Desfontaines*.

“*S. villosa*, foliis ovato-oblongis obtusis sessilibus crenatis, floribus geminis axillaribus, calycibus muticis.

“Tota planta tomento tenui adpresso canescens, habitu et foliis *Teucrio Scordio* similis. Caulis erectus, ramosus, tetragonus, 8-12-pollicaris. Folia parum distantia, 6-10 lin. longa, 4-5 lata. Flores subsessiles. Calyx dilatatus; bracteis 2, lanceolatis; dentibus 5, ovatis, acutis, æqualibus, muticis. Corolla pallide rosea; tubus calycem æquans; labium superius fornicatum, obtusum, integrum, inferius obtuse trilobum; lacinia intermedia, apice dilatata, lateralibus multo latiore. Stamina intra tubum inclusa.”—*Desf. l. c.*

Species dubiæ.

S. CILIATA (Thunb. Fl. Jap. 245).

Hab. in Japonia *Thunberg*.

“*S. herbacea*, foliis ovatis serratis, bracteis ciliatis.

“Caulis herbaceus, tetragonus, erectus, uti tota planta villosus, pedalis et ultra, ramulosus. Folia petiolata, ovata, acuta, serrata, subtus pallida, supra punctis impressis pertusa, vix pollicaria. Petiolus folio paullo brevior. Florum spicæ terminales, lanceolatae, erectæ, digitales. Bracteæ suborbiculatae, acuminatae, nervosæ, ciliatae, imbricatæ.”—*Thunb. l. c.*

S. PARVIFOLIA (Lam. Ill. Gen. t. 505. f. 2) has only been described from Lamarck's wretched figure, which looks more like a *Micromeria* than a *Sideritis*. It cannot, therefore, be enumerated as a species.

S. PROSTRATA. *Zucc. ex Steud. Nom. Bot. 776.*

S. TEUCRIIFOLIA. *Juss. ex Steud. Nom. Bot. 776.*

Species e genere excludendæ.

S. ALOPECUROS *Scop.* = *Stachys Alopecuros*.

S. BULLATA *Humb. et Kunth.* = *Sphacele bullata*.

S. CALYCANTHA *Bieb.* = *Stachys lavandulæfolia*.

S. DECUMBENS *Thunb.* = *Stachys Lamarckii*.

S. HERACLEA *Col.* = *Stachys heraclea*.

S. HIRSUTA *Gou.* = *Stachys recta*.

S. HIRSUTA *Sieb.* = *Stachys italica*.

S. OCYMASTRUM *Gou.* = *Stachys hirta*.

S. PALLIDA *Thunb.* = *Stachys rosmarinifolia*.

S. PANICULATA *Humb. et Kunth.* = *Sphacele paniculata*.

S. PLUMOSA *Thunb.* = *Stachys integrifolia*.

S. RUGOSA *Thunb.* = *Stachys Burchellii*.

S. SALVIÆFOLIA *Humb. et Kunth.* = *Sphacele salviæfolia*.

LXXXI. MARRUBIUM.

Marrubii sp. *Linn. et Auct.**Lagopsis. Bunge.*

Calyx tubulosus, 5-10-nervius, æqualis, dentibus 5-10 acutis sub-spinosis subæqualibus erectis vel sæpius ad maturationem patentibus. Corolla tubo incluso, intus nudo vel subannulato, limbo bilabiato, labio superiore erecto subplano vel concavo, integro vel breviter bifido, inferiore patente trifido, lobo medio latiore sæpius emarginato. Stamina 4, didynama, inferioribus longioribus, intra tubum corollæ inclusa. Antheræ biloculares loculis divaricatis subconfluentibus, omnes sub-conformes. Stylus apice bifidus, lobis brevibus obtusis apice stigmatiferis. Achenia sicca, apice obtusa nec truncata.—Herbæ perennes, sæpius tomentosæ vel lanatæ. Folia rugosa, basi rarius cordata, sæpe incisa; floralia conformia flores excedentia. Verticillastri axillares, multi- vel rarius pauciflori. Bracteæ subulatæ calycem subæquantes, rarius brevissimæ subnullæ.

An European genus extending into the mountains of central Asia; and one species, probably from European seeds, is now found in several parts of America. The *Marrubia* are closely allied to *Sideritis* in the characters of the flower, but very different in habit, in which they resemble *Ballota* on the one hand, and *Leonurus* on the other. The section *Lagopsis* comes near the latter genus in this respect, but has too nearly the characters of *Marrubium* to be separated from it.

CONSPECTUS SPECIERUM.

SECT. I. LAGOPSIS. *Calycis dentes 5. Corollæ tubus exannulatus, labium superius integrum. Folia rotundata, inciso-palmatifida.*

- | | | | | |
|----------------------------------|---|---|---|---------------------|
| Calyces glabri vel vix tomentosi | . | . | . | 1. M. INCISUM. |
| Calyces dense lanati. | | | | |
| Folia utrinque viridia | . | . | . | 2. M. ERIOSTACHYUM. |
| Folia utrinque albo-lanata | . | . | . | 3. M. LANATUM. |

SECT. II. MARRUBIUM. *Calycis dentes 5-10. Corollæ tubus subannulatus, labium superius emarginatum vel bifidum. Folia crenata vel rarius incisa.*

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|---|---|---|---|--------------------|
| Calyx 5-dentatus. | | | | |
| Bracteæ nullæ. | | | | |
| Folia inciso-crenata, basi cuneata | . | . | . | 4. M. ALYSSON. |
| Folia subrotunda, leviter crenata | . | . | . | 5. M. PERSICUM. |
| Bracteæ exteriores calycem æquantes, vel vix dimidio breviores. | | | | |
| Caules paniculato-ramosi. Verticillastri pauciflori | . | . | . | 13. M. PEREGRINUM. |
| Rami elongati, parum ramosi. Verticillastri multiflori. | . | . | . | |
| Folia inciso-crenata vel lobata. | | | | |
| Calyces et bracteæ albo-lanata | . | . | . | 9. M. LEONUROIDES. |
| Calyces et bracteæ viridia, plumoso-villosa | . | . | . | 10. M. PLUMOSUM. |

- Folia crenata.
 Calyces pubescentes vel albo-lanati,
 dentibus vix lineam longis.
 Calyces albo-lanati . . . 6. *M. CÆRULESCENS*.
 Calyces pubescentes vel tomentosi.
 Folia bullato-rugosissima, in-
 feriora rotundata . . . 8. *M. ASTRACANICUM*.
 Folia vix rugosa, omnia ovata. 7. *M. CATARIÆFOLIUM*.
 Calyces molliter villosi, dentibus $1\frac{1}{2}$ -
 $2\frac{1}{2}$ lin. longis.
 Folia ovata . . . 12. *M. CANDIDISSIMUM*.
 Folia rotundata . . . 11. *M. VELUTINUM*.
 Calyx 6-10-dentatus.
 Caulis viridis vel cano-tomentosus.
 Folia floralia omnia calycibus subduplo
 longiora . . . 14. *M. PANNONICUM*.
 Folia floralia suprema calyces vix excedentia.
 Dentes calycini subspinescentes . . . 15. *M. RADIATUM*.
 Dentes calycini mutici . . . 16. *M. CUNEATUM*.
 Caulis dense albo-lanatus . . . 17. *M. VULGARE*.
 Species non satis nota . . . 18. *M. CIRCINNATUM*.

SECTIO I. LAGOPSIS.

Lagopsis. *Bunge Mon. Gen. Molucc.*

Calycis dentes 5. Corollæ tubus exannulatus, labium superius integrum. Folia rotundata, palmatifida.

1. *M. INCISUM*, foliis rotundatis subpalmato-lobatis incisus utrinque subviridibus, bracteis setaceis, calycibus glabris vel vix tomentosis, dentibus 5 setaceis, corollæ labio superiore oblongo integro.

Leonurus supinus. Willd. Spec. 3. 116.

Hab. in Sibiria orientali *Stephan*, Dauria *Turczaninow*! China prope Pekinum *Bunge*! (*h. s. sp. comm. a cl. Bunge.*)

Caules adscendentes, 3-6-pollicares, obtuse tetragoni, tenuiter pubescentes. Folia circumscriptione orbiculata, profunde incisa, lobis obtusis latiusculis, utrinque viridia vel subtus pallida, tenuissime pubescentia. Verticillastri 6-10-flori. Calyces et bracteæ fere *Leonuri Marrubiastris*. Corolla extus villosula, albida, calyce dimidio longior. Species *Leonuris* affinis, sed genitalia et achenia omnino *Marrubii*.

2. *M. ERIOSTACHYUM*, foliis rotundatis palmato-lobatis incisus utrinque viridibus, bracteis rigidis subulatis, calycibus dense lanatis, dentibus 5 subulatis spinescentibus, corollæ labio superiore abbreviato integro.

Leonurus eriostachys. Turcz. ! MSS.

Lagopsis viridis. Bunge ! Mon. Gen. Molucc. ined.

Hab. in Asia Sibirica ad fines Mongholiæ *Turczaninow*! (*h. s. sp. comm. a cl. Bunge.*)

Caules adscendentes, semipedales, acute tetragoni, superne lana longa laxa vestiti, basi glabrati. Folia caulina pauca, longe petiolata; limbo vix pollicari, crassiusculo, utrinque tenuiter pubescente, subtus nervoso, fere ad basin 5-7-partito; lobis incisus; laciniis latis obtusis; floralia minora, minus incisa, angustiora, magis pubes-

centia, at omnia viridia, flores excedentia. Verticillastri sub-10-flori, infimi distincti, superiores in spicam densam lana longa alba laxa obtectam approximati. Bracteæ subulatae, rigidae, subspinescentes. Calyces sessiles, ample tubulosi; dentibus rectis erectis vel per anthesin patentibus parum inæqualibus. Corollæ *M. lanati*.

3. *M. LANATUM*, foliis rotundatis inciso-lobatis utrinque albo-lanatis, bracteis setaceis, calycibus densissime lanatis, dentibus 5 subulatis subspinescentibus, corollæ labio superiore abbreviato integro.

Moluccella Marrubiastrum. *Steph. in Mem. Soc. Nat. Mosc. 2. 8. Ledeb. Ic. Pl. Fl. Ross. Alt. t. 150.*

Lagopsis incana. *Bunge! Mon. Gen. Molucc. ined.*

Hab. in alpibus Altaicis: in apricis lapidosis ad Tschujam fluvium *Bunge! (h. s. sp. comm. a cl. Bunge.)*

Caules e basi crassa perenni numerosi, decumbentes, apice adscendentes, albo-lanati. Folia forma *M. eriostachyos*, at minus profunde incisa, rugosiora, et utrinque lana brevi laxa albida obsecta. Verticillastri in spicis oblongis approximati, densissime lanati. Bracteæ uti dentes calycini subulatae, apice subspinescentes. Corollæ vix e tubo calycis exsertæ, nigro-fuscae, extus villosæ; labii inferioris laciniae uti labium superius integerrimæ. Annulus intra tubum nullus. Stamina superiora brevissima, inferiora duplo longiora at tubo breviora. Antherarum loculi divergentes. Stylus staminibus superioribus longior, inferioribus brevior; lobis brevibus obtusis æqualibus. Achenia oblonga, basi angustata, apice obtusa nec truncata.

SECTIO II. MARRUBIUM.

Calycis dentes 5-10. Corollæ tubus subannulatus, labium superius emarginatum vel bifidum. Folia rotundata vel ovata, crenata vel rarius incisa.

4. *M. ALYSSON* (Linn. ! Spec. 815), foliis subrotundatis basi cuneatis inciso-crenatis lobatisve utrinque mollissime albo-villosis, bracteis subnullis, calycibus lanatis, dentibus 5 rigidis patentibus, corollæ labio superiore brevi emarginato-bifido.

M. plicatum. Forsk. Fl. Ægypt. Arab. 213.

Hab. in regione Mediterranea: in Hispania *Willdenow*, Sardinia *Müller!* Apulia *Tenore*, Alexandriæ *Forskahl!* (*h. s. sp. ex Un. Itin. Wurtemb.*)

Caules crassi, semipedales vel vix pedales, basi ramosi, adscendentes, lana densa adpressa induti. Folia omnia basi cuneiformia, integerrima, apice obtuse et profunde crenata vel lobata, venis subtus valde elevatis subplicata, utrinque pilis mollissimis albidis subsericeis vestita; floralia omnia conformia, floribus duplo et ultra longiora. Verticillastri secus ramos fere a basi dispositi, omnes distantes, sæpius 10-15-flori. Bracteæ subnullæ. Calyces sessiles, rigidi, tubulosi, extus sericeo-lanati, fauce intus lana clausa; dentes lanceolati, pungentes, duri, stellato-patentes. Corolla minuta, limbo dentibus calycinis brevior, labiis subæqualibus, superiore emarginato-bifido.

5. *M. PERSICUM* (Meyer ! Enum. Pl. Cauc.-Casp. 95), foliis orbiculatis crenatis utrinque niveo-lanatis, bracteis subnullis, calycibus lanatis, dentibus 5 rigidis patentibus, corollæ labio superiore oblongo apice bifido.

Hab. in Persiæ Caspicæ locis siccis lapidosis montium Taliſch prope pagum Swant *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

Habitus, folia, et inflorescentia fere *M. vulgaris*, sed ex omni parte lana candidissima vestitum. Flores fere *M. Alyssi*, at in verticillastro numerosiores. Calyx minor, densius lanatus. Corolla parum major.

6. *M. CÆRULESCENS* (Desf. Cat. Hort. Par. ed. 3. 395), caule elato albo-lanato, foliis ovatis apice crenatis vix rugosis supra viridibus subtus canescentibus, bracteis exterioribus calyce brevioribus, calycibus albo-lanatis, dentibus 5 subulatis rectis patentibus, corollæ galea oblonga apice bifida.

Hab. in Persia *Hort. Barclay.* (*h. s. c.*)

Caules 2-3-pedales, erecti. Folia forma *M. astracanicum*, sed juniora subtus albo-tomentosa vel lanata, adulta fere glabra parum rugosa. Flores minores laxiores. Calyces fructiferi fere *M. Alyssi*.

7. *M. CATARIÆFOLIUM* (Desr. in Lam. Dict. 3. 717), caule cano-tomentoso, foliis ovatis crenatis subrugosis pubescentibus subtus canescentibus, bracteis exterioribus calyce brevioribus, calycibus cano-tomentosis, dentibus 5 brevibus rigidis patentissimis recurvis, galea oblonga apice bifida.

Hab. in Cappadocia *Tournefort!* (*v. s. sp. in herb. Mus. Brit.*)

M. astracanicum affine, sed erectius, ramosius, cano-tomentosum, nec lanatum, nec villosum. Verticillastri numerosiores, minores. Flores minores et folia diversa. Corollæ albæ.

8. *M. ASTRACANICUM* (Jacq. ! Ic. Rar. 1. 11. t. 109), caule laxo villosulo sublanato, foliis ovatis apice crenatis bullato-rugosissimis utrinque villosis viridibus vel vix subtus canescentibus, bracteis exterioribus calyce brevioribus, calycibus pubescentibus, dentibus 5 brevibus acutis rectis vel subrecurvis, corollæ galea oblonga apice bifida.

M. astracanicum. *Reichb. Icon. Bot. Eur.* 3. 61. t. 270.

Hab. in Oriente *Tournefort!* in montium altiorum Taliſch campis *C. A. Meyer*, in Cashmeria *Royle?* nec circa Astracan. (*h. ? s. sp. comm. a cl. Royle, et v. s. c. et sp. in herb. Banks.*)

Habitu inter *M. candidissimum* et *M. leonuroidem* media. Caulis pars inferior et foliorum inferiorum pagina inferior pilis longis mollissimis vestitæ. Folia multo rugosiora quam in *M. leonuroidem*, basi rotundata, integerrima, apice grosse 6-12-crenata. Verticillastri dense multiflori. Calyces apice molliter villosi. Corolla rubra vel alba.

There is much confusion in the synonyms of this and the following species. It is commonly the *M. leonuroides*, and sometimes the *M. vulgare*, that is received from the Caucasus and Astracan, under the names of *M. astracanicum* and *catariæ-folium*. The true *M. astracanicum* appears to be a Persian and Armenian plant; and it is probably owing to some gardener's mistake that it has been supposed to come from Astracan. The specimens I describe it from are those of *Tournefort* and *Jacquin*, in the *Banksian herbarium*. *M. Royle's* specimens are scarcely good enough to ascertain positively whether they belong to this species. I have not seen the plant any where else.

9. *M. LEONUROIDES* (Desr. in Lam. Dict. 3. 715), caule sublanato, foliis ovatis subrotundatisve grosse inciso-crenatis molliter pubes-

centibus subtus vel utrinque canescentibus, bracteis exterioribus calyce vix brevioribus, calycibus albo-lanatis, dentibus 5 subulatis recurvopatentibus, corollæ galea oblonga apice bifida.

M. leonuroides. Reichb. *Icon. Bot. Eur.* 3. 84. t. 299.

M. astracanicum. Bieb. *Fl. Taur.-Cauc.* 2. 52. ? et *Auct. plur.*

M. affine. Hornem. *Hort. Hafn.* 556. ?

Hab. in Caucasi promontorio et in regione subalpina frequens *Steven!* *Bieberstein, C. A. Meyer, &c.*, et prope Astracan *Prescott!* (*h. s. sp.*)

Caules e basi ramosa erecti vel adscendentes, subsimplices, plerumque vix pedales, crassi, tetragoni, sæpius breviter albo-lanati. Folia inferiora subrotunda, superiora ovata; floralia suprema ovato-lanceolata, omnia crenaturis latis profundis obtusissimis inæqualibus notata, molliter rugosa. Verticillastri magnitudine *M. vulgaris*. Dentes calycini breves. Corollæ purpurascentes.

10. *M. PLUMOSUM* (Meyer! *Enum. Pl. Cauc.-Casp.* 96), foliis rotundatis inciso-lobatis utrinque molliter villosis subcanescentibus, calycibus molliter villosissimis, dentibus 5 bracteisque subulatis plumosis, corollæ galea oblonga apice bifida.

Hab. in Caucasi regione alpina orientali *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

Caules adscendentes, tetragoni, tomento brevi conspersi vel pilis laxis pubescentes. Folia fere *M. lanati*, lobis brevibus obtusis integerrimis, medio sæpius majore; floralia conformia, flores excedentia. Verticillastri fere pollicem diametro, distantes, multiflori. Bracteæ calycem æquantes. Dentes calycini tubo parum breviores, demum stellato-patentes. Corolla vix dentibus calycinis longior, labium superius oblongo-lanceolatum, inferioris laciniae laterales lanceolatae, intermedia latissima, emarginata.

11. *M. VELUTINUM* (Sibth. et Sm.! *Fl. Gr.* 6. 49. t. 561), ramis elongatis tomentosis basi lanatis, foliis orbiculatis crenatis basi subcuneatis utrinque velutino-villosis, verticillastris amplis multifloris, calycibus tomentoso-pubescentibus, dentibus 5 bracteisque subulatis rigidis rectis vel demum patentibus, corollæ galea oblonga bifida.

Hab. in monte Parnasso *Sibthorp!* (*v. s. sp. in herb. Banks et Sibthorp.*)

Affine *M. candidissimo*, a quo differt præcipue colore totius plantæ et forma foliorum. Caules sesquipedales, lana in parte inferiore laxissima albida, superne obtuse tetragoni, tomento brevi flavescente. Folia vix pollicaria, latitudine longitudinem æquante, crassa, rugosa, mollia, inferiora petiolata; floralia subsessilia. Inflorescentia et flores fere *M. candidissimi*, at corollæ dentibus calycinis breviores.

12. *M. CANDIDISSIMUM* (Linn.! *Spec.* 816), ramis elongatis subramosis albo-lanatis, foliis ovatis crenatis mollissime cano-villosis vel albo-lanatis, verticillastris maximis multifloris, calycibus albo-villosis lanatisve, dentibus sæpissime 5 subulatis rigidis patentibus, corollæ galea oblonga apice bifida.

M. supinum. Linn. *Spec.* 816. ? et *Auct. plur.*

M. peregrinum. Reichb. *Icon. Bot. Eur.* 4. 10. t. 312. non Linn.

M. catariæfolium. Reichb. *Icon. Bot. Eur.* 4. 10. t. 313. non Desr.

M. setaceum. Desr. in *Lam. Dict.* 3. 717. ?

M. incanum. Desr. in *Lam. Dict.* 3. 716.

M. uncinatum. *Horn. Hort. Hafn.* 968. ?

M. flexuosum. *Mærch. Meth.* 399. ?

M. odoratissimum. *Pourr. ex Steud. Nom. Bot.* 510.

Hab. in Europa australi: in Hispania! Gallia australi? Italia *Requien!* Dalmatia, Istria, et Carinthia *Reichenbach*, et in Persiæ Caspicæ montibus *Talüsch C. A. Meyer.* (*h. s. sp. comm. a cl. Requien.*)

Caules crassi, basi procumbentes, apice adscendentes parum ramosi, 1-2-pedales. Folia circiter pollicaria, lana in pagina superiore sericea, in inferiore densiore, interdum subfloccosa, adulta rarius viridia, pubescentia. Verticillastri remoti, ampli, 20-50-flori. Bracteæ subulatæ, rigidæ, pleræque calyces æquantes. Calyx sæpe ultra 4 lin. longus, dentibus longis, sæpius inæqualibus, demum stellato-patentibus, rectis vel vix recurvis, in exemplaribus sylvestribus constanter 5 dentatus, in cultis rarius 6-10-dentatus. Corolla albida, dentibus calycinis parum longior.

There is much confusion in the synonymy of this plant and the *M. vulgare*, to some of the varieties of which several of the names above quoted may perhaps be referable.

13. *M. PEREGRINUM* (Linn. ! *Spec.* 815), humile, divaricato-ramosum, foliis oblongis cano-tomentosis, verticillastris paucifloris, calycibus tomentosis, dentibus 5 lanceolato-subulatis erectis vel vix patentibus, corollæ galea oblonga bifida.

M. peregrinum. *Jacq. Fl. Austr. t.* 160.

M. creticum. *Mill. Dict. n.* 3. *Reichb. Icon. Bot. Eur.* 3. 74. t. 288.

M. pauciflorum. *Wallr. ! Sched. Crit.* 295.

M. angustifolium. *Mærch. ex Steud. Nom. Bot.* 510.

Hab. in Europa præsertim austro-orientali et Asiæ mediæ apricis: in Germania prope Halle *Kunze!* in Austria! Transylvania et Moravia *Reichenbach*, in Græcia et insulis Archipelagi *Sibthorp!* *Durville, &c.*, in agro Byzantino et inter Smyrnam et Bursam *Sibthorp!* in regione Tauro-Caucasico *Bieberstein, Durville, C. A. Meyer.* (*h. s. sp.*)

Caules vix pedales, paniculato-ramosi, obtuse tetragoni, uti foliorum pagina utraque et calyces tomento brevi canescentes, nec lanati nec villosi. Folia breviter petiolata, $\frac{1}{2}$ -1 $\frac{1}{2}$ -pollicaria, basi integerrima, cuneata, medio et apice serraturis vel crenis brevibus notata; floralia conformia, minora, at omnia flores excedentia. Verticillastri in axillis foliorum superiorum dispositi, sæpius 4-6-flori, rarius 10-flori. Bracteæ subulatæ, muticæ, tomentosæ, exteriores calyce dimidio breviores. Calyces sessiles, 10-nervii, apice truncati, dentibus e basi sublanceolato-subulati, inæquales, sinubus rarissime hinc inde in dentem sextum vel septimum minimum productis. Corollæ albidæ, dentes calycinis breviter excedentes. In exemplaribus hortensibus statura interdum sesquipedalis, foliis majoribus apice subincisis.

14. *M. PANNONICUM* (Clus. *Reichb. Fl. Germ. Exc.* 325), ramis divaricatis subramosis, foliis ovatis oblongisve cano-tomentosis vel molli-ter villosis, floralibus omnibus flores duplo superantibus, verticillastris multifloris omnibus distantibus, calycibus cano-tomentosis, dentibus 6-10 subulatis demum patentibus, corollæ galea oblonga apice bifida.

M. paniculatum. *Desr. in Lam. Dict.* 3. 716. ? *Reichb. Icon. Bot. Eur.* 3. 86. t. 300.

M. peregrinum. *Spreng. Fl. Hal. t.* 6. non Linn.

M. remotum. *Kit. in Schult. Osterr. Fl.* 2. 161.

M. rubrum. *Roth. Nov. Pl. Spec.* 259. ?

Hab. in Germania prope Halle *Kunze!* in Hungaria *Endlicher!* in Moravia, Austria, et Transylvania *Reichenbach.* (*h. s. sp.*)

Species *M. peregrino* affinis et etiam *M. vulgari* quodammodo accedens. Tomentum *M. peregrini* vel vix densius. Folia latiora quam in *M. peregrino*, angustiora et acutiora quam in *M. vulgari*. Verticillastri secus ramos distantes plerumque 12-15-flori. Bracteæ calycem æquantes. Calyces *M. peregrini*, sed dentes 6-10 longiores, acutiores, et sæpius demum patentes, subrecurvi. Corollæ *M. peregrini*.

This has been said to be a hybrid, but natural hybrids appear scarcely possible in a genus where, like *Marrubium*, the stamina and style are enclosed in the tube of the corolla.

15. *M. RADIATUM* (Delile! MSS.), ramis divaricatis subramosis cano-tomentosis, foliis ovatis oblongisve cano-tomentosis vel molliter villosis, floralibus supremis calyces vix superantibus, verticillastris multifloris laxiusculis supremis approximatis, calycibus parvis tomentosis dentibus 6-10 elongatis subulatis rectis stellato-patentibus subspinescentibus.

Hab. in regione Mediterranea? (*h. s. c. comm. a cl. Delile ex seminibus ad portum Juvenalem prope Monspelium lectis.*)

Affine *M. pannonico*, sed foliis calycibusque minoribus, et characteribus supra notatis satis distinctum.

16. *M. CUNEATUM* (Russ.! Nat. Hist. Alep. 2. 255), caule basi albo-lanato apice pubescente, foliis ovato-cuneatis rugosissimis supra viridibus subtus canescentibus, floralibus parvis vix calyces excedentibus, calycibus parvis tomentosis dentibus 10 brevibus subrecurvo-patentibus muticis.

Hab. in Syria prope Aleppo *Russell!* (*v. s. sp. in herb. Banks.*)

Caules circiter pedales, tenuiores quam in cæteris speciebus, parce ramosi. Folia $\frac{1}{2}$ -1-pollicaria, angustiora quam in *M. vulgari*, superiora multo minora. Verticillastri numerosi, inferiores remoti, superiores approximati. Calyces vix 2 lin. longi. Corollæ parvæ, albidæ?

17. *M. VULGARE* (Linn.! Spec. 816), ramis albo-lanatis, foliis ovatis rotundatisve molliter villosis subviridibus vel subtus albo-lanatis crenatis, verticillastris multifloris, calycibus villosulo-lanatis dentibus 10 subulatis recurvo-patentibus, corollæ galea oblonga apice bifida.

M. hamatum. Humb. et Kunth.! Nov. Gen. et Sp. Amer. 2. 310.

M. germanicum. Schrank ex Steud. Nom. Bot. 510.

β *lanatum*, foliis densius albo-lanatis.

M. apulum. Ten.! Fl. Nap. t. 154. Syll. 292.

Hab. in Europæ omnis et Asiæ mediæ ruderalis, ad vias, &c., et ex Europa allata in America: in Europa a Scotia! Suecia, et Petropoli *Sobolewski*, ad Hispaniam! Siciliam *Gussone*, Neapolim *Tenore*, Græciam *Sibthorp!* *Zuccarini!* &c., in Caucaso! et prope Derbend Persiæ *C. A. Meyer*, in America septentrionali! California *Douglas!* Mexico *G. J. Graham!* Brasilia *A. de St. Hilaire!* Chili *Cuming!* *Macrae!* (*v. v. et h. s. sp.*)

Caules basi ramosi, erecti, adscendentes vel rarius decumbentes, crassi, duri, $1\frac{1}{2}$ -2-pedales, lana densa alba in parte caulis superiore adpressa, in inferiore laxa obtecti. Folia sæpius fere orbicularia vel rhomboidea, basi nonnunquam cordata, margine duplicato-vel inæqualiter crenata, sæpe undulato-crispa, superficie rugosissima, nunc utrinque viridia nunc supra velutino-vel sericeo-villosa, subtus plus minusve albo-lanata; in var. β utrinque lana longa alba densissima obtecti; floralia conformia, minora, sed omnes verticillastos excedentia, basi plus minusve petiolata.

Verticillastri distantes, dense 20-50-flori. Bracteæ lineari-subulatæ, lanatæ, calyces æquantes, apice sæpius acumine brevi subrecurvo glabro terminatæ. Calyces sessiles, nunc breviter pubescentes nunc dense albo-lanati, dentibus sæpissime apice hamatis, rarius rectis. Corollæ parvæ, albæ.

Species non satis nota.

18. *M. CIRCINNATUM* (Desr. in Lam. Dict. 3. 717).

Hab. in Oriente? *Desrousseaux*.

“*M. foliis circinnatis exquisite crenatis rugosissimis, dentibus calycinis subulatis erectis villosis.*

“*Caules tetragoni, tomentosi. Folia orbicularia, regulariter crenata, crassa, tomento molli lucido vestita, fere sesquipollicem lata, petiolis brevibus canaliculatis. Bracteæ setacæ, villosæ, calyces subæquantes. Flores albi videntur, sessiles, numerosi. Calyx tubulosus, tomentosus. Corollæ tubus calycis tubum paulo superans; labium superius profunde bifidum.*”—*Desr. l. c.*

Species mihi omnino ignotæ.

M. CINERASCENS Fisch. ex Steud. Nom. Bot.

M. UNDULATUM Sieb.

Species e genere excludendæ.

M. ACETABULOSUM Linn. = *Ballota acetabulosa*.

M. AFRICANUM Linn. = *Ballota africana*.

M. CINEREUM Desr. = *Ballota hirsuta*.

M. CRISPUM Desr. = *Ballota hirsuta*.

M. CRISPUM Linn. = *Ballota africana*.

M. HIRSUTUM Willd. = *Ballota hirsuta*.

M. HISPANICUM Linn. = *Ballota hispanica*.

M. HUMILE Desf. = *Ballota rugosa*.

M. INDICUM Burm. = *Anisomeles ovata*.

M. MICROPHYLLUM Desr. = *Ballota microphylla*.

M. MOLLISSIMUM Don. = *Leucas lanata*.

M. NIGRUM Crantz. = *Ballota nigra*.

M. ORIENTALE Spreng. = *Ballota orientalis*.

M. PSEUDODICTAMNUS Linn. = *Ballota pseudodictamnus*.

M. RUGOSUM Desr. = *Ballota rugosa*.

M. RUGOSUM Russ. = *Ballota saxatilis*.

M. RUPESTRE Bivon. = *Ballota hispanica*.

M. SAXATILE Rafin. = *Ballota hispanica*.

M. SCROPHULARIÆFOLIUM Lag. = *Ballota hispanica*.

M. THOUINI Schult. = *Ballota africana*.

LXXXII. *BALLOTA*.

Ballota et Marrubii sp. Linn. et Auct.

Beringeria. Necker.

Pseudodictamnus. Mæench.

Calyx subinfundibuliformis, tubo 10-nervio, dentibus 5-10, basi

dilatatis vel in limbum orbiculatum patentem connatis. Corolla tubo subincluso, intus transverse piloso, annulato, limbo bilabiato, labio superiore erecto oblongo, subconcavo, apice emarginato, inferiore patente trifido, lobo medio emarginato. Stamina 4, adscendentia, didynama, inferioribus longioribus. Antheræ e tubo corollæ exsertæ, per paria approximatae, biloculares, loculis demum divaricatis subdistinctis. Stylus apice bifidus, lobis subulatis, apice stigmatiferis. Achenia sicca, apice obtusa nec truncata.—Herbæ perennes, hirsutæ, lanatæ vel tomentosæ. Folia rugosa basi sæpius cordata, integra vel crenata, nec incisa; floralia subconformia. Verticillastri axillares, multi- vel rarius pauciflori. Bracteæ numerosæ, oblongæ, subulatæ, spiniformes vel interdum brevissimæ.

An European and African genus, differing from *Marrubium* by the exsert stamens and the form of the calyx, from *Leucas* by the anthers and style, and from *Moluccella* by the regular calyx, the achenia not truncate, and other characters.

CONSPECTUS SPECIERUM.

SECT. I. BERINGERIA. *Bracteæ molles. Calycis limbus 6-20-dentatus vel crenatus.*

- | | |
|---|------------------------|
| Stamina vix e tubo corollæ exserta | 1. B. AFRICANA. |
| Stamina labium superius corollæ fere æquantia. | |
| Calycis limbus orbiculato-patens, tubo sub-
æqualis vel longior. | |
| Calycis limbus maximus membranaceus,
sub 20-crenatus | 4. B. ACETABULOSA. |
| Calycis limbus obtuse 10-crenatus. | |
| Folia integerrima. Calycis limbus sub-
planus | 2. B. PSEUDODICTAMNUS. |
| Folia et calycis limbus margine undu-
lato-crispa, crenata | 3. B. UNDULATA. |
| Calycis limbus acute 10-dentatus. | |
| Folia ovata, utrinque canescentia, mol-
lissime villosa | 5. B. MOLLISSIMA. |
| Folia orbiculata, supra subviridia, hir-
suta | 6. B. HIRSUTA. |
| Calycis limbus subpatens, tubo brevior, acute
dentatus. | |
| Verticillastri densi, multiflori | 12. B. HISPANICA. |
| Verticillastri pauciflori. | |
| Folia integerrima | 11. B. RUSSELLIANA. |
| Folia crenata. | |
| Folia utrinque cano-tomentosa | 8. B. RUGOSA. |
| Folia supra viridia. | |
| Calycis limbus subæqualis | 10. B. SAXATILIS. |
| Calycis limbus valde obliquus | 9. B. OBLIQUA. |
| Species non satis nota | 7. B. MICROPHYLLA. |

SECT. II. BALLOTA. *Bracteæ molles. Calycis limbus 5-dentatus.*

- | | |
|------------------------------------|---------------------|
| Species unica satis nota | 13. B. NIGRA. |
| Species dubia | 14. B. URTICÆFOLIA. |

SECT. III. ACANTHOPRASIMUM. *Bracteæ spinæformes. Calycis limbus 5-10-dentatus.*

Calycis limbus brevis, 5-10-dentatus.

Folia omnia crenata. Calyx 6-10-dentatus . 16. B. SPINOSA.

Folia sæpius integerrima. Calyx 5-dentatus 17. B. INTEGRIFOLIA.

Calycis limbus maximus scariosus . . . 15. B. PERSICA.

Species non satis nota 18. B. FORSKAHLI.

SECTIO I. BERINGERIA.

Bracteæ oblongæ vel subulatæ, molles. Calycis limbus 6-20-dentatus vel crenatus.

1. B. AFRICANA, hirsuta, foliis orbiculatis irregulariter crenatis supra vel utrinque viridibus, calycis limbo patente orbiculato dilatato, dentibus subdenis breviter setaceis, corollæ galea ovata, staminibus vix e tubo exsertis.

Marrubium africanum. Linn.! Spec. 816.

Pseudodictamnus emarginatus. Mæench. ex Steud. Nom. Bot. 663.

Marrubium crispum. Linn.! Spec. 1674.

Marrubium Thouini. Schult. ex Descr. Weimer. in Syll. Pl. Soc. Ratisb. 2. 23.

Hab. in Africa australi ad Caput Bonæ Spei! (h. s. sp.)

Caules erecti, pedales, tetragoni, pilis patentibus hirsuti. Folia longiuscule petiolata, limbo pollicari, crenaturis obtusis vel rarius acutis, utrinque pubescentia, hirsuta vel subtus sublanata; floralia conformia, petiolo flores sæpius superante. Verticillastri globosi, multiflori, distantes. Bracteæ subulatæ, calycem æquantes. Calyces 4 lin. longi, pubescentes vel hirsuti, tubo 10-angulato plicato, limbo late campanulato vel subrotato, dentibus 5 majoribus longius acuminatis, 5 vel interdum sub 10 minoribus muticis vel brevius acuminatis. Corolla fere glabra dentibus calycinis parum longior; labium superius breve latum erectum, integrum, vel breviter emarginatum, inferioris laciniae laterales ovatae obtusæ, media late rotundato-cuneata emarginata.

2. B. PSEUDODICTAMNUS, albo-lanata, foliis orbiculatis integerrimis vel obscure crenatis crassis lanatis, calycis limbo patente dilatato lanato 5-10-crenato.

Marrubium pseudodictamnus. Linn.! Spec. 817. Sibth. et Sm. Fl. Gr. 6. 50. t. 562.*

Beringeria pseudodictamnus. Necker. Link Handb. 478.

Hab. in Creta Sibthorp! Sieber! &c. (h. s. c. et v. s. sp.)

Frutex bipedalis. Rami elongati, uti folia et calyces lana densa floccosa obtecti. Folia vix pollicaria, basi late cordata, breviter petiolata; floralia conformia, flores excedentia. Verticillastri dense multiflori, distantes. Bracteæ oblongo-spathulatæ, obtusæ, exteriores tubum calycis æquantes. Calycis limbus demum fere 5 lin. diametro, venis sub lana omnino reconditis. Faux villis clausa. Corolla alba, rubro-maculata, tubo intus transversim piloso-annulato, labio superiore elongato incurvo subfornicato extus villosa, in parte superiore intus pilis longis berbato, apice bifido, inferiore patente superiori æquilongo, laciniis lateralibus brevibus, intermedia duplo longior bifida, lobis oblongis obtusis.

* This and the B. acetabulosa are in the same sheet in Sibthorp's herbarium with Sir J. E. Smith's label of M. pseudodictamnus.

3. *B. UNDULATA*, hirsuta, foliis orbiculatis crenatis utrinque villosis rugoso-crispis, calycis limbo patente orbiculato tubo subbreviore crasso tomentoso villosa margine undulato-crispo 10-20-crenato, crenaturis muticis.

Hab. in Arabiæ deserto Sinaico *N. Bové!* (*h. s. sp. a cl. Bové lectam.*)

Rami, folia, et calyces pilis patentibus pluribus glanduliferis, hirsuta nec lanata. Folia caulina vix pollicem diametro; floralia minora, superiora calycibus breviora. Verticillastri multiflori, at minus densi quam in *B. pseudodictamno*. Bracteæ breves, lineari-spathulatæ. Calyces demum semipollicares. Tubus intus glaber, nervis elevatis lævibus, extus basi vix striatus, apice uti basis limbi profunde 10-striatus subplicatus, faux villis clausa. Limbus demum 4-5 lin. diametro, uti folia crassus, rugosus, margine undulato-crispus. Corollæ tubus intus annulatus, galea oblonga, latior quam in *B. pseudodictamno*, apice vix emarginata, labii inferioris lacinia laterales ovatae, intermedia latissima emarginata.

4. *B. ACETABULOSA*, hirsuta vel sublanata, foliis orbiculatis crenatis supra villosis subtus albo-lanatis, calycis limbo patente tubo longiore membranaceo reticulato sublanato, margine sub 20-crenato, crenaturis muticis.

Marrubium acetabulosum. *Linn. Spec.* 817.

Marrubium pseudodictamnus. *Steud. et Hochst. Pl. Exs. Un. Itin. non Linn.*

Beringeria acetabulosa. *Necker. Link Handb.* 478.

Marrubium suffruticosum. *Mill. ! Dict. n. 9.*

Hab. in Græciæ insulis frequens *Durville! Sibthorp!* in oriente *Olivier! Smyrnæ Fleischer!* (*h. s. sp. Un. Itin. Wurtemb.*)

Caulis bipedalis, basi perennis. Rami pilis longis laxis hirsuti vel sublanati. Folia sæpe 1½-2 pollices diametro, supra rugosa, pilis longis hirsuta, viridia, lana subtus floccosa; floralia suprema vix calyces excedentia. Verticillastri fructiferi fere sesquipollicem diametro. Bracteæ exteriores petiolatæ, oblongo-spathulatæ, tubum calycis æquantes, interiores subulatæ. Calyces basi albo-villosi vel lanati. Limbus demum 9-10 lin. diametro, circumscriptione quinquangulata, crenaturis latis brevibus obtusis vel acutiusculis. Corollæ galea vix emarginata, labii inferioris lacinia latiores quam in *B. pseudodictamno*, angustiores quam in *B. undulata*.

5. *B. MOLLISSIMA*, caule albo-lanato, foliis late ovatis obtusis utrinque canescentibus vel albidis supra velutinis subtus subfloccoso-lanatis, calycis limbo patente tubum subæquante villosa-tomentoso margine breviter 10-dentato, dentibus latis acutis vix mucronulatis.

Marrubium scrophulariæfolium, cinereum, &c. *Hortul.*

Marrubium hispanicum. *Linn. Herb. vix Spec.* 816. *non Auct. recent.*

Hab. in Hispania? (*h. s. c. et v. s. c. in herb. plur.*)

Lana caulis brevis velutina vel rarius floccosa. Folia minus lata quam longa, regulariter crenata, utrinque mollissima, inferiora sesquipollicaria, suprema et ramalia minora, at omnes calyces excedentia. Verticillastri densi, multiflori. Bracteæ numerosæ, spathulatæ, acutæ. Calycis limbus demum 4-5-pollicaris, plicato-rugosus, tomentosus. Corolla *B. pseudodictamni*, albida.

An *B. hirsutæ* varietas?

6. *B. HIRSUTA*, hirsuta vel sublanata, foliis orbiculatis crenatis supra hirsutis utrinque viridibus vel subtus albo-lanatis, calycis limbo patente tubum subæquante hirsuto margine breviter 10-dentato dentibus latis acutis vel mucronulatis.

Marrubium hirsutum. *Willd. Spec.* 3. 113.?

Marrube de Carthagène. *Hort. Par.*

Marrubium crispum. *Desr. in Lam. Dict.* 3. 719? *et Auct. plur. non Linn.*

β *hispida*, viridior hirsutior.

Marrubium cinereum. Desr. in Lam. Dict. 3. 719.?

Hab. in Africa boreali prope Mogador *Broussonet!* Carthaginem?
Hortul; β in Hispania *Herb. Requier!* (*h. s. sp. comm. a cl. Requier.*)

Habitus et folia *B. acetabulosæ*, a qua differt calycis limbo minore hirsutiore, 10- nec 20-dentato, minus membranaceo. In var. β caulis pilis numerosis patentibus hispidus, et dentes calycini acutiores. Bracteæ in utraque varietate exteriores spathulatæ, interiores subulatæ. A *B. hispanica* differt foliis orbiculatis et calycis forma.

7. *B. MICROPHYLLA.*

Marrubium microphyllum. Desr. in Lam. Dict. 3. 720.

Hab. in Oriente? *Herb. Jussieu (Desrousseaux.)*

"*M. tomentosum*, foliis subcordato-ovatis exquisite crenulatis, calyce infundibuliformi, bracteis spathulatis acutis.

"Caules tetragoni, subflexuosi. Folia subsessilia, mollia, crassa, tenuissime et regulariter crenulata, 7-8 lin. longa, circiter 4 lata. Verticilli e floribus numerosis sessilibus constantes, bracteis numerosis spathulatis calyci æquilongis intermixtis. Calyces fructiferi venosi, subvillosi; limbus semipatens, dentibus 10 acutis quorum 5 minores."—Desr. l. c.

8. *B. RUGOSA*, caule pubescente sublanato, foliis ovatis obtusis crenatis rugosis utrinque cano-tomentosis, verticillastris paucifloris, calycis limbo brevi subpatente, dentibus denis brevibus mucronulatis.

Marrubium rugosum. Desf. Cat. Hort. Par. ed. 3. 395.

Marrubium humile. Desf. l. c.?

Hab. in Oriente? (*h. s. c.*)

Caules humiles, tomento brevi induti. Folia vix semipollicaria, subtus sæpe albo-lanata. Verticillastri 4-6- rarius sub-10-flori. Bracteæ breves lineares. Calyces forma calycis *B. hispanicæ*, sed cano-tomentosi nec hirti, profunde striati. Corolla *B. acetabulosæ*, sed glabrior.

9. *B. OBLIQUA*, caule cano-pubescente, foliis ovatis crenatis rugosis supra canescentibus subtus albo-lanatis, verticillastris paucifloris, calycis limbo brevi inæqualiter dilatato, dentibus denis mucronatis.

Marrubium rugosum, var. *Russ. Herb.*

Hab. in Syriæ montibus inter Aleppo et Antiochiam *P. Russell!*
(*v. s. sp. in herb. Banks.*)

Omnibus partibus *B. saxatili* duplo major. Calyces 4-5 lin. longi, limbo sæpius uno latere tantum producto et dilatato.

10. *B. SAXATILIS* (Sieb.! Pl. Exs.), hirsuta, foliis ovatis orbiculatisve crenatis crassis rugosis utrinque viridibus vel subtus albidis utrinque hirtis, verticillastris paucifloris, calycis limbo brevi subpatente dentibus denis mucronatis.

Marrubium rugosum. *Russ. ! Nat. Hist. Alep. 2. 255.*

Hab. in Syria prope Aleppo *Russell!* in Palæstina *Sieber!* prope Hierosolymam *N. Bové!* (*h. s. sp. comm. a cl. Endlicher, et a cl. Bové lect.*)

Caulis basi lignosus videtur. Rami divaricati vel procumbentes, pilis longis mollibus villosi vel sublanati. Folia inferiora pollicaria; floralia vix semipollicaria. Verticillastri ut in *B. rugosa* pauciflori. Bracteæ minutæ. Calyces hirsuti profunde striati. Affinis *B. rugosæ*, a qua differt hirsutie et corollis minoribus.

11. *B. RUSSELIANA*, caule vix pubescente, foliis ovatis obtusis integerrimis rugosis supra viridibus subtus albidis, verticillastris paucifloris, calycis limbo brevi subpatente dentibus 6-10 acutis vel breviter mucronulatis.

Hab. in Syria prope Aleppo *Russell!* (*v. s. sp. in herb. Banks.*)

Affinis *B. saxatili*, et cum ea in herbario Russeliano mixta, sed foliis omnibus integerrimis et ramulis minimis hirsutis distincta. Folia vix semipollicaria, basi cordata, supra pubescentia.

12. *B. HISPANICA*, hirsuta, foliis ovato-cordatis superioribus sæpius acutis vel omnibus obtusis rarius rotundatis utrinque hirsutis viridibus vel subtus canescentibus, calycis limbo brevi subpatente dentibus denis setaceo-mucronatis.

Marrubium hispanicum. Linn. ! *Spec.* 816.

Marrubium rupestre. Biv. ! *Manip.* 2. t. 1.

Marrubium scrophulariæfolium. Lag. !

Pseudodictamnus acutus. Mæench. *Meth.* 399.

Marrubium saxatile. Rafin.

Hab. in Hispania ! Sicilia *Gussone!* Italia australi *Tenore!* Dalmatio *UnioItin.* Wurtemb. ! (*h. s. sp.*)

Caules erecti, bipedales et ultra, pilis mollibus patentibus hirsuti. Folia sæpius bipollicaria, exacte cordiformia, crenata, rugosa, mollia; floralia minora, at flores excedentia. Verticillastri 20-50-flori, densi. Bracteæ lineares vel exteriores subspathulatæ, uti calyces virides hirsutissimæ. Limbus calycis vix tertiæ parti tubi æqualis. Corolla *B. acetabulosæ*.

SECTIO II. BALLOTA.

Bracteæ lineari-subulatæ, molles. Calycis limbus 5-dentatus.

13. *B. NIGRA* (Linn. *Spec.* 814), hirsuta vel glabrata, foliis ovatis basi truncatis utrinque viridibus plus minusve hirtis, calycis limbo suberecto, dentibus 5 basi dilatatis apice subulato-mucronatis.

B. nigra. Reichb. *Icon. Bot. Eur.* 8. 30. t. 773.

B. alba. Linn. *Spec.* 814.

B. foetida. Lam. *Fl. Fr.* 2. 381. Reichb. *Icon. Bot. Eur.* 8. 30. t. 775.

B. vulgaris. Link.

B. borealis. Schweigg. Reichb. *Icon. Bot. Eur.* 8. 30. t. 776.

B. ruderalis. Spr. *Fl. Hal.* 101.

B. sepium. Paulet in Pers. *Syn.* 2. 125.

B. rubra. Schrad.

Marrubium nigrum. Crantz *Stirp. Austr.* 272.

Hab. in Europæ totius ruderalis frequens: a Scotia ! Suecia *Fries!* &c., Petropoli *Sobolewski*, ad Hispaniam ! Siciliam *Gussone*, Italiam *Tenore*, Græciam *Sibthorp!* in Tauria et Caucaso *Durville*, *Bieberstein*, &c. (*v. v. et h. s. sp.*)

Herba erecta, 2-3-pedalis. Caules, folia, et calyces viridia, nunc fere glabra,

sæpius pubescentia, rarius hirsuta. Folia inferiora latiora, obtusa, subrotunda, superiora acutiora; floralia omnia flores excedentia. Verticillastri multiflori, laxiusculi, cymis præsertim in inferioribus breviter pedunculatis. Bracteæ lineari-subulatae, calyces æquantes vel iis breviores. Calyces 4 lin. longi, tubo striato, limbo forma valde variabili, nunc patente dilatato 5-angulato angulis brevissime mucronatis, nunc vix aucto dentibus 5 e basi lanceolato-subulatis vix patentibus. Corollæ tubus intus brevissime piloso-annulatus, labiis brevioribus quam in præcedentibus, superiore obtuso integro vel emarginato.

The form of the limb of the calyx is so uncertain within the above-mentioned limits, that I cannot distinguish the three plants figured as separate species by Reichenbach; and I feel strongly inclined to consider also the *B. urticæfolia*, which I have not seen, as another state of the same plant.

14. *B. URTICÆFOLIA* (Ortm. Reichb. Icon. Bot. Eur. 8. 30. t. 774.)

Hab. in Bohemiæ et Saxonie ruderalis, et ad muros *Reichenbach*.

“*B. gracilis*, foliis ovatis argute et profunde serratis, calycis dentibus erectis lineari-setaceis tubum æquantibus.

“*Tri-quadripedalis* et ultra, reliquis (*B. nigra*) longior tenuior, viridis, vix aut minus pubescens. Folia circuitu exacte *Urticæ urentis*, primordialia tantum cordata.”—*Reichb. Fl. Germ. Exc.* 325.

SECTIO III. ACANTHOPRASIIUM.

Bracteæ subulatae, rigidae, spinæformes. Calycis limbus 5-10-dentatus.

15. *B. PERSICA*, foliis cuneiformibus dentatis, bracteis spinæformibus, calycis limbo membranaceo dilatato breviter 5-10-dentato.

Moluccella persica. *Burm. ! Fl. Ind.* 128. t. 38. f. 2.

Hab. in Persia *Burm. !* (v. s. sp. in herb. *Delessert*.)

“*Frutex* similis *M. frutescenti*, ramis simplicibus erectis glaberrimis albicantibus. Spinæ ad singula genicula inæquales, simplicissimæ, patentes, basi sæpe cohærentes numero 5 ad 12. Folia cuneiformia, basi integerrima, apice serrata serraturis spinulosis tomentosis, quæ in *M. frutescente* mutica. Calyx regularis 5-fidus, laciniis obovatis scariosis obtusis cum tribus mucronibus, quæ in fructu ovato-acuminatæ. Corolla planiuscula, glabra.”—*Burm. l. c.*

16. *B. SPINOSA* (Link Handb. 475), foliis ovatis integerrimis vel inciso-dentatis utrinque viridibus, verticillastris paucifloris, bracteis spinæformibus rectis, calycibus hirtis, limbo suberecto, dentibus 5-10 e basi dilatata subulatis subspinosus, corollæ galea hirsutissima.

Moluccella frutescens. *Linn. ! Spec.* 821.

Beringeria frutescens. *Reichb. Fl. Germ. Exc.* 325.

Hab. in montibus *Pedemontii !* et *Galloprovinciæ !* (h. s. sp.)

Fruticulus pedalis, erectus, ramosus. Rami vix tetragoni, pilis brevibus mollibus villosi. Folia petiolata, vix pollicaria, caulina inferiora integerrima obtusa, superiora acutiora dentibus utrinque 1-2 profundis instructa; floralia conformia, suprema minora acutiora at flores superantia, omnia utrinque villosa concoloria. Verticillastri subsexflori, distantes. Bracteæ paucae, calyce parum breviores, patentes, glabræ, læves, in ramis veteribus persistentes. Calyces breviter pedicellati, 4-5 lin. longi, striati, villosi, dentibus 5 e basi ovata subulatis subspinosus 1-5, aliis minoribus subconformibus e sinubus ortis. Corollæ tubus intus

annulatus; galea brevis, fornicata, integra, extus pilosissima; labium inferius galeæ subæquilongum, lobis oblongis, medio latiore emarginato. Species bracteis *Moluccellæ*, corolla *Leucadi* affinis. Calyx et genitalia omnino *Ballotæ*.

17. *B. INTEGRIFOLIA*, fruticosa, pubescens, foliis ovatis integerrimis vel rarius paucicrenatis utrinque viridibus, bracteis spiniformibus reflexo-patentibus, calycis limbo dilatato subpatente 5-dentato, corollæ galea glabriuscula.

Moluccella frutescens. *Sibth. et Sm. ! Fl. Gr. 6. 55. t. 568.*

Hab. in ins. Cypro *Sibthorp!* (v. s. sp. in herb. *Sibthorp et Banks.*)

Habitus *B. spinosæ*, a qua differt ramis longioribus, foliis sæpius integerrimis, spinis validioribus brevioribus sæpius recurvis, calycibus longioribus, limbo ampliore constanter 5-dentato. Corollæ ex icone Floræ Græcæ, albæ, lineis purpureis striatæ, vix calyces excedentes; labio superiore oblongo integro extus pubescente, inferioris lobo medio emarginato.

18. *B. FORSKAHLEI.*

Phlomis alba. *Forsk. Fl. Egypt. Arab. 107.*

Hab. in Arabia Felici *Forskahl!* (v. s. sp. in herb. *Vahl.*)

“P. involucris palmato-filiformibus, foliis ovatis serratis.

“Flores albi, labium superius hirsutum, præsertim margine, at intus apice emarginatum, dorso elevato-striatum. Erucae sæpe findunt arrodendo labii inferioris lobum medium.”—*Forsk. l. c.*

“Flores verticillati verticillis remotis 10-12-floris. Involucra quadrifida, laciniis setaceis longitudine calycis. Calyx campanulatus, pubescens, fauce obliqua, quinquedentatus, dentibus subulatis inermibus, binis superioris majoribus.”—*Vahl. Symb. 1. 43.*

From the very short notes I was enabled to take in *Vahl's* herbarium on my visit to Copenhagen in 1832, it appears that this species has much the habit of, and is nearly allied to, the *B. spinosa*. The calyx is often 6-toothed.

Species dubiæ.

B. ORIENTALIS (Presl. Del. Prag. 80).

Marrubium orientale. *Spreng. l. c.*

Hab. in Asia minore *Sprengel.*

“M. caule ramoso villosa, foliis cordato-subrotundis dentatis rugosis subtus incano-tomentosis, bracteis linearibus, calycis rigidi dentibus 10 spinosis, galea corollæ fornicata crenulata.”—*Spreng. l. c.*

B. PILOSA (Lour. Pl. Cochinch. 364).

Hab. in Cochinchina *Loureiro.*

“B. foliis ovatis crenatis tomentosis, verticillis pilosis, calycibus 10-dentatis.

“Caulis perennis, 4-pedalis, erectus, debilis, tetragonus, striatus, pilosus, ramosus. Folia ovata, acuta, crenata, tomentosa. Flos albus bilabiatus, verticillis axillaribus pilosis. Calyx tubulosus, recurvus, 10-striatus, limbo 10-dentato dentibus acutis reflexis. Corollæ labium superius integrum fornicatum, inferius patens trifidum.”

Verosimiliter *Leucadis* species.

B. DISCOLOR *Desf. ex Steud. Nom. Bot. 99.*

B. PARVIFOLIA *Desf. ex Steud. l. c.*

July 1834.

Species e genere excludendæ.

- B. CINEREA* Don. = *Roylea elegans*.
B. DISTICHA Linn. = *Anisomeles ovata*.
B. DISTICHA Rodsch. = *Hyptis pectinata*.
B. LANATA Linn. = *Leonurus lanatus*.
B. MAURITIANA Pers. = *Anisomeles ovata*.
B. SUAVEOLENS Linn. = *Hyptis suaveolens*.
B. SUAVEOLENS Rodsch. = *Hyptis pectinata*.

LXXXIII. LASIOCORYS.

Leucadis sp. *R. Br.*

Calyx subcampanulatus, æqualis, 10-nervius, dentibus 5 ovatis, sinubus rarissime dentibus minutis auctis. Corolla tubo incluso, intus annulato, limbo bilabiato, labio superiore integro concavo erecto extus hirsutissimo, inferiore patente vix longiore trifido, lacinia media vix latiore, emarginata. Stamina 4, didynama inferioribus longioribus, adscendentia. Filamenta basi nuda. Antheræ per paria sub labio superiore approximatae, biloculares, loculis divaricatis. Styli lobi subulati, inferiore brevior nunc brevissimo, versus apicem stigmatiferi. Achenia sicca, triquetra, apice obtusa.

A South African genus, nearly allied both to *Ballota* and *Leucas*, but distinct in habit from both.

1. *L. CAPENSIS*, foliis subintegerrimis, verticillastris 2-4-floris, dentibus calycinis tubo dimidio brevioribus.

Hab. ad Caput Bonæ Spei *Masson ! Burchell ! &c. (h. s. sp. comm. a cl. Burchell.)*

Frutex divaricato-ramosus, ramis junioribus tetragonis, brevissime candido-tomentosis, adultis teretibus, vix canescentibus, glabratiss. Folia in ramulis subfasciculata, subsessilia, oblonga vel cuneiformia, obtusa vel mucronulata, integerrima, basi angustata, tomento tenuissimo subsericeo canescentia vel demum glabrata, vix 3-4 lin. longa; floralia conformia. Verticillastri sæpius biflori. Bractæ nunc brevissimæ subnullæ, nunc calycis quartam partem æquant, setaceæ, rigida, recurvæ, interdum subspinescentes. Calyces subsessiles, tomento tenui subsericei, dentibus obtusis vel mucrone brevi terminatis. Corolla albida? Styli lacinia superior sæpius brevissima.

2. *L. ABYSSINICA*, foliis apice dentatis, verticillastris 6-10-floris, dentibus calycinis subulato-acuminatis tubum subæquantibus.

Leucas quinquedentata. Br. App. to Salt. Abyss.

Hab. in Abyssinia *Salt ! (v. s. sp. in herb. Mus. Brit.)*

Habitus *L. integrifolia*, rami tenuiter pubescentes. Folia longiora quam in *L. integrifolia*, viridiora, apice sæpius dentibus paucis instructa. Bractæ parvæ, subulatæ, rigidiusculæ. Verticillastri irregulariter 6-10-flori. Calyces 10-nervi, vix tomentosi, dentibus acutissimis tubo fere æqualibus. Styli lacinia superior inferiore dimidio brevior.

LXXXIV. ROYLEA.

Roylea. Wall. *Pl. As. Rar.* 1. 57.

Ballotæ sp. Don. *Prod. Fl. Nep.*

Calyx basi tubulosus, 10-nervius, limbo 5-fido, laciniis erectis oblongis membranaceis reticulato-venosis æqualibus. Corolla calyce brevior, tubo incluso intus annulato, limbo bilabiato, labio superiore erecto, integro, fornicato, inferiore patente trifido, lobo medio integro. Stamina 4, didynama, inferioribus longioribus, sub labio superiore adscendentia. Antheræ per paria approximatae, biloculares, loculis divaricatis demum subconfluentibus. Stylus apice subæqualiter bifidus, lobis subulatis, apice stigmatiferis. Achenia sicca, apice obtusa.

A single East Indian species, closely allied to *Ballota* and *Otostegia*, from which it only differs in the calyx.

1. *R. ELEGANS* (Wall. ! *Pl. As. Rar.* 1. 57. t. 74).

Phlomis calycina. Roxb. ! *Fl. Ind.* 3. 11.

Ballota cinerea. Don. *Prod. Fl. Nep.* 111.

Hab. in Indiæ orientalis montibus Sirmorensibus et in Deyra Dhoon Wallich ! inter Hurdwar et Srinaghur Hardwicke, in montibus Syen et Jounsar in jugo Himalayano Royle ! (*h. s. sp. e Mus. Angl. Ind.*)

Frutex ramosissimus, erectus, 3-5-pedalis. Rami patentes, paniculati, obsolete quadrangulares, tomento cinereo brevi denso vestiti. Folia copiosa, petiolata, ovata, acuta, leviter subcordata, grosse et obtuse serrata, 1-1½-pollicaria, utrinque parce pilosula, supra viridia, subtus incana ; floralia conformia, gradatim minora, at omnia calyces excedentia. Verticillastri laxè 6-10-flori, cymis breviter pedunculatis, pedicellis brevissimis. Bractæ parvæ, subulatae. Calyces tomentoso-pubescentes, demum 7-8 lin. longi, cano-pubescentes, tubo cylindrico 10-striato, limbo tubum æquante. Corollæ ex albo dilutissime roseæ.

LXXXV. OTOSTEGIA.

Phlomidis sp. Vahl.

Moluccellæ sp. R. Br.

Calyx basi tubulosus, 10-nervius, limbo subbilabiatim membranaceo-producto, labio superiore brevi integro vel 3-angulato, inferiore maximo ovato obtuso. Corolla tubo incluso, intus annulato, limbo bilabiato, labio superiore oblongo, concavo, integro, erecto, extus hirsutissimo, inferiore patente trifido, lobo medio latiore emarginato. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta basi nuda. Antheræ per paria sub labio superiore approximatae, biloculares, loculis divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis, apice stigmatiferis. Achenia sicca, apice obtusa. —Frutices. Verticillastri laxè pluriflori. Corollæ albæ ?

An Abyssinian and Arabian genus, differing from *Ballota*, *Roylea*, and *Leucas* in the calyx, and from the latter genus by the equal divisions of the style.

1. *O. INTEGRIFOLIA*, foliis oblongis integerrimis utrinque subsericeo-tomentosis, calycis labio superiore ovato integro.

Moluccella integrifolia. Br. ! *App. to Salt Abyss.*

Hab. in Abyssinia *Salt* ! (v. s. sp. in herb. Mus. Brit. et Lambert.)

Rami obtuse tetragoni, sulcati, subsericeo-pubescentes. Folia basi angustata, apice obtusa, utrinque ut in *Atriplice Halimo* canescentia, juniora ramis abortientibus in axillis fasciculata, spinis duabus subulatis rectis patentibus glabris in axilla quaque ad basin ramuli. Verticillastri plures in racemo terminali dispositi, foliis floralibus caulinis conformibus. Bracteæ lanceolatae, rigidae, integerrimæ, subpaleaceæ, pubescentes, apice spinosæ, calycis tubum æquantes. Calyx *O. scariosæ*, sed paulo major, tubo villosiore.

2. *O. SCARIOSÆ*, foliis ovatis dentatis rugosis utrinque viridibus, calycis labio superiore ovato integro.

Moluccella scariosa. Br. ! *App. to Salt Abyss.*

Clinopodium fruticosum. Forsk. ! *Fl. Ægypt. Arab.* 107.

Phlomis moluccoides. Vahl ! *Symb.* 1. 42. t. 14.

Hab. in Arabia *Felici Forskahl* ! in Abyssinia *Salt* ! (v. s. sp. in herb. Vahl, Banks, Lambert, &c.)

Frutex habitu fere *Royleæ*. Rami tetragoni, tomento brevi pubescentes. Folia breviter petiolata, vix pollicaria, basi rotundato-cuneata, supra glabra vel tenuissime pubescentia, subtus tenuiter tomentosa, concoloria, vel juniora canescentia. Verticillastri pauci, multiflori, laxi, cymis brevissime pedunculatis. Bracteæ lineares, tubo calycis parum breviores, canescenti-pubescentes. Calycis tubus striatus, villosus, 4-5 lin. longus, labium superius vix 1½-lin. longum, inferius tubo æquilongum lato-ovatum, margine integerrimum subcrenatum. Corollæ galea labio calycis paulo longior.

3. *O. REPANDA*, foliis ovatis dentatis rugosis subtus cano-tomentosis, calycis labio superiore brevi triangulato.

Moluccella repanda. Br. ! *App. to Salt Abyss.*

Hab. in Abyssinia *Salt* ! (v. s. sp. in herb. Mus. Brit. et Lambert.)

Affinis *O. scariosæ*, differt ramis foliisque villosis, foliis subtus dense cano-tomentosis, calycibus villosioribus, et labii superioris forma.

LXXXVI. LEUCAS.

Phlomidis sp. Linn.

Leucas. Br. *Prod.* 504.

Calyx tubulosus vel tubuloso-campanulatus, striatus, apice rectus vel incurvus, ore æquali vel oblique supra vel infra producto, 8-10-dentato. Corolla tubo incluso, intus annulato vel nudo, limbo bilabiato, labio superiore concavo, erecto, integro vel rarius emarginato,

extus hirsutissimo, inferiore longiore patente trifido, lacinia media maxima. Stamina 4, didynama, inferioribus longioribus, adscendentia. Filamenta basi nuda. Antheræ sub labio superiore per paria approximatae, subbiloculares, loculis divaricatis confluentibus. Styli lobus superior brevissimus, inferior subulatus, versus apicem stigmatifer. Achenia sicca, triquetra, apice obtusa.—Herbæ suffruticesve. Folia integerrima vel sæpius dentata; floralia subconformia. Verticillastri nunc pauciflori, nunc dense multiflori. Corollæ sæpius albæ, rarius purpurascentes.

A South Asiatic and East African genus, with one species extending over the islands of the Pacific. The only constant distinction from *Ballota* is the very uncertain one of the unequally lobed style. But in most instances the calyx and corolla, as well as the general habit, mark it out as a good genus.

CONSPECTUS SPECIERUM.

SECT. I. HEMISTOMA. *Verticillastri dense multiflori. Bractææ numerosæ. Calyces ore obliquo, latere inferiore membranaceo-producto.*

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| Caules et folia subtus dense sericeo-tomentosa | 1. L. INDICA. |
| Caules et folia tenuissime canescenti-tomentosa vel glabra | 2. L. URTICÆFOLIA. |

SECT. II. LOXOSTOMA. *Verticillastri pauciflori. Bractææ minutæ. Calyces ore obliquo, latere inferiore productione.*

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| Species unica | 3. L. GLABRATA. |
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SECT. III. ORTHOLEUCAS. *Verticillastri pauci-rarius multiflori. Bractææ minutæ vel paucæ. Calyces tubulosi, ore æquali vel vix obliquo, intus nudo, dentibus 10 rectis.*

Bractææ minutæ.

Folia subtus albida vel canescentia, tomentosa vel lanata.

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| Calyces infundibuliformes | 4. L. CHINENSIS. |
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Calyces tubuloso-campanulati.

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| Folia rotundata tenuiter pubescentia | 16. L. NEPETÆFOLIA. |
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| Folia ovata, strigoso-hispida | 12. L. ANGULARIS. |
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| Calyces tubulosi subincurvi, ore parum obliquo | 9. L. HAMILTONIANA. |
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Calyces tubulosi recti.

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| Rami teretes | 10. L. TERES. |
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Rami tetragoni.

Folia ovata.

Calyces dense sericeo-lanati.

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| Folia supra viridia, subtus candida | 5. L. MONTANA. |
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| Folia utrinque candida | 7. L. LANATA. |
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Calyces virides, pubescentes.

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| Folia grosse dentata, rugosa | 8. L. MOLLISSIMA. |
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Folia obscure crenata, vix rugosa, supra viridia, subtus candidissima

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| 6. L. OVATA. |
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| Folia oblonga vel lanceolata | 11. L. STRIGOSA. |
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- Folia utrinque viridia.
 Folia ovata.
 Verticillastri pluri- vel multiflori.
 Calyces tubulosi, dentibus setaceo-acuminatis.
 Folia utrinque pilosa, floralia subsessilia . . . 13. L. PILOSA.
 Folia glabra vel pubescentia, omnia petiolata.
 Folia et calyces glabriuscula . . . 15. L. FLACCIDA.
 Folia et calyces tomentoso-pubescentia . . . 14. L. DECEMDENTATA.
 Calyces tubuloso-campanulati, dentibus latis acutis muticis . . . 16. L. NEPETÆFOLIA.
 Verticillastri biflori.
 Folia tenuiter pubescentia . . . 19. L. BIFLORA.
 Folia strigoso-hispida . . . 12. L. ANGULARIS.
 Folia oblongo-lanceolata vel lanceolato-lineararia.
 Calyces 4-5-lineares, dentibus setaceo-acuminatis . . . 18. L. PROCUMBENS.
 Calyces vix 3-lineares, dentibus muticis . . . 17. L. ANGUSTIFOLIA.
 Bracteæ calycis dimidium æquantes vel superantes.
 Folia rugosa, subtus albo-lanata . . . 21. L. MARRUBIODES.
 Folia tenuia utrinque viridia vel vix canescentia . . . 20. L. PUBESCENS.
 Species non satis nota . . . 22. L. JAVANICA.

SECT. IV. ASTRODON. *Verticillastri densi, sæpius multiflori. Bracteæ adpressæ, calyces subæquantes. Calyx tubulosus, ore æquali, intus villosus, dentibus 10 demum subpatentibus.*

- Suffrutices vel fruticuli. Folia integerrima vel rarissime subdentata. Corollæ tubus exannulatus.
 Folia 2-3-pollicaria, petiolata . . . 27. L. LANCEÆFOLIA.
 Folia vix 1-1½-pollicaria, sessilia.
 Folia supra pilis adpressis sericea.
 Folia ternatim verticillata . . . 26. L. TERNIFOLIA.
 Folia opposita . . . 25. L. HELIANTHEMIFOLIA.
 Folia supra scabra vel pilis longis hirta.
 Rami rufo-villosi apice nudî. Folia supra hispida . . . 23. L. SUFFRUTICOSA.
 Rami foliosi sericeo-villosi. Folia supra scabro-hirta . . . 24. L. ROSMARINIFOLIA.
 Herbæ foliis dentatis. Corollæ tubus intus annulatus.
 Bracteæ et dentes calycini apice molliter hamata . . . 28. L. STELLIGERA.
 Bracteæ et dentes calycini apice recta vel patentia.
 Folia basi cordata . . . 29. L. LAMIIFOLIA.
 Folia basi rotundata vel angustata.
 Folia vix pollicaria. Caulis sæpius humilis ramosissimus . . . 30. L. HIRTA.
 Folia 2-3-pollicaria. Caulis ultra pedalis.
 Caulis rufo-hirsutissimus . . . 31. L. VESTITA.
 Caulis pilis paucis pubescens . . . 32. L. CILIATA.

SECT. V. PLAGIOSTOMA. *Verticillastri pauci- vel sæpius multiflori. Bracteæ calycem subæquantes. Calyx ore obliquo vel reflexo, superne productiore, 8-10-dentato.*

- Calyces apice reflexi.
 Verticillastri axillares distantes. Bracteæ lanceo-
 lato-lineares 38. *L. NUTANS.*
 Verticillastri solitarii subterminales. Bracteæ
 subulatæ 39. *L. DIMIDIATA.*
 Calyces apice incurvi vel erecti.
 Bracteæ lato-lanceolatæ 40. *L. CEPHALOTES.*
 Bracteæ subulatæ vel lineari-lanceolatæ.
 Dentes calycini demum stellato-patentes . . 33. *L. STRICTA.*
 Dentes calycini erecti.
 Folia ovata 41. *L. MARTINICENSIS.*
 Folia oblonga, lanceolata vel linearia.
 Calyx canescens, ore valde obliquo,
 dente supremo maximo 42. *L. LINIFOLIA.*
 Calyx piloso-hirtus, dentibus brevibus
 setaceis vix irregularibus.
 Herba e basi crassa perenni multi-
 caulis, adscendens 36. *L. HYSSOPIFOLIA.*
 Herba annua.
 Caules erecti, vix pedales.
 Verticillastri hirsuti 37. *L. ASPERA.*
 Verticillastri fere glabri, ni-
 gricantes 34. *L. ZEYLANICA.*
 Caules elongati, diffusi 35. *L. DIFFUSA.*

SECTIO I. HEMISTOMA.

Hemistoma. *Ehrenb.-Benth. in Wall. Pl. As. Rar. 1. 60.*

Calyx tubulosus, ore obliquo, latere inferiore producto, supra fisso. Verticillastri globosi, multiflori. Bracteæ numerosæ, calycem æquantés.

1. *L. INDICA* (Br. Prod. 504), herbacea, caule foliisque subtus dense sericeo-tomentosis, verticillastris multifloris globosis, calycibus villosulis membranaceis ore obliquo infra producto supra fisso, dentibus 3 inferioribus brevibus setaceis, superioribus evanidis.

Phlomis indica. Linn. ! Spec. 820.

Hab. in ins. Madagascaria *Oldenburgh !* et *Johanna Robertson !* (*v. s. sp. in herb. Banks.*)

Caules humiles, subsimplices, pilis brevibus mollibus subsericeis vestiti. Folia breviter petiolata, lato-ovata, acutiuscula, grosse serrato-crenata, basi rotundata, mollia, rugosa, supra viridia, villosa, subtus pilis albidis sericeis vestita; floralia conformia, flores excedentia, suprema ex apice verticillastri supremi eminentia. Verticillastri pauci, distantes, plus pollice diametro. Bracteæ numerosæ, lineares vel subulatæ, acutæ, villosæ. Calyces floriferi bracteis breviores; fructiferi longe producti, fere pollicares, 10-nervi, valde obliqui, supra profunde fissi. Corolla calycem breviter excedens, densissime albo-villosa.

2. *L. URTICÆFOLIA* (Br. Prod. 504), herbacea, tenuissime canescenti-tomentosa, verticillastris multifloris globosis, calycibus villosulis membranaceis, ore obliquo infra producto supra fisso, dentibus 8-10 brevissimis setaceis.

Phlomis urticæfolia. Vahl. ! Symb. 3. 76.

Leucas affinis. Br. ! in App. to Salt Abyss.

Hemistoma ovatum. Ehrenb. ! MSS.

Hab. in Indiæ orientalis Peninsula *Wight! Heyne! &c.*: ad Lo-hargong in Bundelkund, et ad ripas fluminis Jumna *Royle!* in Abyssinia *Salt!* in Arabia *Forskahl!* (*h. s. sp. e Mus. Angl. Ind., et comm. a cl. Wight, et v. s. sp. in herb. Mus. Brit. &c.*)

Habitus et inflorescentia *L. indicæ*. Caules semipedales vel vix pedales, basi decumbentes, adscendentes, parum ramosi, tomento tenui canescentes. Folia petiolata, lato-ovata, grosse serrato-crenata, basi rotundato-cuneata, tenuia, utrinque tomento tenuissimo subcanescentia, demum glabrata; floralia conformia, flores excedentia, suprema sterilia. Verticillastri vix pollicem diametro, globosi, densi, distantes. Bracteæ lanceolato-lineares, acutæ, ciliatæ, numerosæ, adpressæ, calyces æquantes. Calyces forma *L. indicæ*, sed minores, dentibus longius mucronulatis. Corollæ albæ, tubo tenui, intus omnino nudo. Galea brevi integra, labio duplo longiore, lobis lateralibus ovalibus obtusis, medio maximo substipitato emarginato bifido, laciniis latis obtusis.

SECTIO II. LOXOSTOMA.

Calyx tubulosus, ore obliquo, latere inferiore productiore. Verticillastri pauciflori. Bracteæ minutæ.

3. *L. GLABRATA* (Br. Prod. 504), herbacea, glabra, verticillastris 2-4-floris secundis, calycibus glabris, ore obliquo infra producto supra vix fisso, dentibus 10 subulatis.

Phlomis glabrata. Vahl.! Symb. 1. 42.

Hab. in Africa austro-orientali: ad sinum Delagoa *Forbes!* in Arabia Felici *Forskahl!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Tota planta sæpe purpurascit. Caules elongati, decumbentes, parce foliosi, subramosi, angulis acutis subasperis, cæterum uti tota planta glabri. Folia petiolata, ovata vel oblonga, paucidentata, utrinque viridia, paucivenia; floralia conformia. Verticillastri axillares, 2-4-flori, subsecundi. Calyces sessiles, 3-4-lineares, basi attenuati, 10-striati, glabri, apice purpurascens. Corolla purpurascens? Anulus internus incompletus, transversalis, callosus; labium superius oblongum, emarginatum, inferius patens, lobo medio lato-emarginato.

SECTIO III. ORTHOLEUCAS.

Ortholeucas. Benth. in Wall. Pl. As. Rar. 1. 61.

Verticillastri laxiusculi, sæpe pauciflori. Bracteæ minutæ vel paucae, setaceæ, rarissime calyces subæquantes. Calyx tubulosus vel subcampanulatus, striatus, ore æquali vel vix obliquo, fauce subnuda, dentibus 10 erectis subulatis vel brevissimis setaceis.

4. *L. CHINENSIS* (Br. Prodr. 504), suffruticosa? ramis sericeo-tomentosis, foliis lato-ovatis grosse dentatis rugosis villosis subtus albidis, verticillastris paucifloris, bracteis minutis, calycibus tomentosis infundibuliformibus, limbo æquali demum dilatato acute 10-dentato.

Phlomis chinensis. Retz. Obs. 2. 19.

Hab. in China *Retz*, in Indiæ orientalis Peninsula *Wight!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitus *L. montanæ*, *lanatæ*, &c. Rami divaricati vel procumbentes, apice adscendentes, tetragoni, pilis reflexis adpressis vestiti. Folia breviter petiolata vix pollicaria, basi rotundato-truncata; floralia conformia, omnia mollissime villosa, supra viridia. Verticillastri ante anthesin 6-10-flori, sed flores plerique abortiunt, et 2 vel 3 tantum maturescunt. Calyces fructiferi semipollicares, reflexi, tomento pallido villosi, forma *Ballotæ vulgaris*, sed characteres corollæ et genitalium omnino *Leucadis*.

5. *L. MONTANA* (Spreng. Syst. 2. 742), perennis vel suffruticosa, ramis sericeo-tomentosis, foliis ovatis serrato-crenatis rugosis supra viridibus pubescenti-hirtis subtus albo-lanatis, verticillastris multifloris, bracteis minutis, calycibus sericeo-lanatis, ore æquali, dentibus brevissimis setaceis erectis.

Phlomis montana. Roth. Nov. Pl. Spec. 263.

Hab. in Indiæ orientalis Peninsula prope Maderaspatam! (*h. s. sp. et v. s. sp. in herb. plur.*)

Rami e basi perenni sublignosa adscendentes vel divaricati, tomento albo uti foliorum pagina inferior et calyces dense vestiti. Folia pollicaria, basi rotundato-truncata vel late cordata, crassa, mollia; floralia conformia. Verticillastri 15-20-flori, distantes. Calyces 3 lin. longi, basi attenuati, apice 10-striati. Corolla alba, tubus intus transversim annulatus, galea densissime albo-villosa, labium galea duplo longius.

6. *L. OVATA* (Benth. in Wall. Pl. As. Rar. 1. 61), perennis vel suffruticosa, ramis sericeo-tomentosis, foliis ovatis obscure crenatis rugosis supra viridibus pubescenti-hirtis subtus albo-lanatis, verticillastris multifloris, bracteis minutis, calycibus pubescentibus, ore æquali, dentibus brevissimis setaceis rectis.

Hab. in regno Burmannico ad ripas fluvii Irawaddi *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *L. montanæ*. Differt ramis elongatis (2-pedalibus et ultra), foliis majoribus obtusissimis margine vix late crenatis vel subintegerrimis, floralibus supremis minoribus, et calycibus subviridibus pubescentibus nec sericeo-lanatis.

7. *L. LANATA* (Benth. in Wall. Pl. As. Rar. 1. 61), perennis vel suffruticosa, ramis albo-lanatis, foliis ovatis subcrenatis crassis rugosis utrinque mollissime albo-lanatis, verticillastris multifloris, bracteis minutis vel paucis setaceis, calycibus albo-lanatis, ore æquali truncato, dentibus brevissimis setaceis erectis.

Marrubium mollissimum. Don. Prod. Fl. Nepal. 112.

Hab. in Indiæ orientalis vallibus provinciarum Kamaon, Sirmore, et Deyra Dhoun *Wallich*! *Royle*! (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *L. montanæ*. Differt lana totius plantæ densa candida subsericea, foliis angustioribus minus profunde crenatis. Corollæ albæ?*

8. *L. MOLLISSIMA* (Wall. Pl. As. Rar. 1. 62), perennis vel suffru-

* Dr. Wallich describes the flowers of this plant to be blue, and those of *L. mollissima* to be white. From the dried specimens it appears to be nearly the reverse, those of *L. lanata* being white, and in *L. mollissima* purplish. Possibly Dr. Wallich's notes may have got exchanged by mistake, or he may have successively given the specific name of *mollissima* to both species.

ticosa, ramis tetragonis adpresse tomentoso-villosis, foliis ovatis crenatis rugosis molliter villosis subtus pallidis vel canescentibus, verticillastris multifloris, bracteis minutis, calycibus pubescentibus, ore æquali, dentibus brevissimis setaceis erectis.

Hab. in Indiæ orientalis vallibus Napalensibus, et in jugo Punduanò *Wallich!* in China *Sir G. Staunton!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitus fere *L. montanæ*, sed sæpius elatior ramosior. Folia semipollicaria vel vix pollicaria, inferiora obtusa, superiora acuta, basi rotundato-truncata vel late cordata, breviter petiolata; floralia conformia. Verticillastri numerosi, distantes, 10-30-flori. Calyces *L. ovatæ*, 3 lin. longi, basi attenuati, pubescentes, striati, subvirides. Corolla alba? vel sæpius purpurascens, tubo intus transversim annulato.

9. *L. HAMILTONIANA* (Benth. in Wall. Pl. As. Rar. 1. 62), perennis, ramis adpresse tomentoso-villosis, foliis ovatis serrato-crenatis rugosis molliter villosis subtus canescentibus vel rufescentibus, verticillastris paucifloris, bracteis minutis, calycibus pubescentibus subincurvis, ore obliquo, dentibus brevissimis setaceis erectis.

Hab. in India orientali ad Monghyr *Hamilton!* (*h. s. sp. e Mus. Angl. Ind.*)

Forsan *L. mollissimæ* varietas, at differre videtur foliis majoribus acutioribus, verticillastris paucifloris, et calycibus longioribus subincurvis.

10. *L. TERES* (Benth. in Wall. Pl. As. Rar. 1. 62), perennis vel suffruticosa, ramis tomentosis teretibus, foliis ovatis subcrenatis supra viridibus pubescentibus subtus canescentibus vix rugosis, verticillastris 6-10-floris, bracteis minutis, calycibus pubescentibus, ore æquali, dentibus brevissimis setaceis erectis.

Hab. in India orientali: in regno Burmannico ad ripas Irawaddi *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *L. mollissimæ*, a qua differt ramis teretibus, foliis minoribus vix rugosis, et floribus in verticillastro paucioribus minoribus.

11. *L. STRIGOSA* (Benth. in Wall. Pl. As. Rar. 1. 62), herbacea, ramis tetragonis adpresse pubescentibus, foliis oblongo-lanceolatis vix serratis supra viridibus strigoso-hirtis subtus rufo-canescens adpresse tomentosis, verticillastris paucifloris, bracteis minutis, calycibus pubescentibus, ore æquali, dentibus brevissimis.

Hab. in India orientali prope Prome *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Rami elongati, adscendentes, superne paucifoliati. Folia subsessilia, inferiora pollicaria, superiora parva remota. Verticillastri remoti, 2-6-flori, rarius sub-10-flori. Flores *L. pilosæ*.

12. *L. ANGULARIS* (Benth. in Wall. Pl. As. Rar. 1. 62), herbacea, procumbens, ramis acute tetragonis angulis ciliatis subalatis, foliis breviter petiolatis ovatis crenatis rugosis utrinque strigoso-hispidis, verticillastris paucifloris, bracteis minutis, calycibus tubuloso-campanulatis villosis, ore æquali, dentibus setaceis.

Hab. in Ceylona *Macrae!* (*v. s. sp. in herb. Lindley.*)

Ab affinibus *L. strigosa* et *L. pilosa* differt foliorum forma et præsertim

calycibus ut in *L. nepetæfolia* subcampanulatis. Exemplar in herbario Lindleyano, etsi imperfectum, speciem distinctissimam demonstrat.

13. *L. PILOSA* (Benth. in Wall. Pl. As. Rar. 1. 62), perennis, erecta, ramis piloso-pubescentibus, foliis ovatis serrato-crenatis utrinque viridibus pilosis vel subtus canescenti-pubescentibus, verticillastris plurifloris, bracteis minutis, calycibus pubescentibus, ore æquali, dentibus brevissimis setaceis erectis.

Phlomis pilosa. Roxb. Fl. Ind. 3. 12. ?

β *pubescens* (Benth. l. c.), foliis subtus canescenti-pubescentibus.

Hab. in India orientali: α in Bengala et ad ripas Irawaddi Wallich! β in Deyra Dhoun Royle! Rajemahl Wallich! (h. sp. e Mus. Angl. Ind., et comm. a cl. Royle.)

Caules in var. α erecti, sesquipedales, acute tetragoni, virides, uti folia et calyces pilis rigidiusculis conspersi, in var. β pilis brevibus adpressis tomentosi. Folia breviter petiolata, basi late cordata vel rotundata, sæpius acuta, superiora angustiora minora, suprema vix calyces excedentia. Verticillastri 2-20-flori. Flores fere *L. mollissimæ*, sed calyces parum longiores, dentibus nonnullis interdum subulatis elongatis. Corolla alba vel pallide purpurascens.

14. *L. DECEMDENTATA* (Sm. in Rees Cycl.), annua? pubescens, foliis ovatis crenatis tenuiter tomentosis utrinque viridibus vel subtus subcanescentibus, verticillastris multifloris, inferioribus vel omnibus petiolo brevioribus, bracteis minutis, calycibus pubescentibus striatis, ore æquali, dentibus brevibus setaceis.

Stachys decemdentata. Forst. Prodr. n. 526.

Phlomis decemdentata. Willd. Spec. 3. 124.

Leucas stachyoides. Spreng. Syst. 2. 743.

Hab. in Asia orientali et insulis Oceani Pacifici: in ins. Timor Gaudichaud! Otaheite Mathews! Cuming! &c., Corallinis Beechey! Malden Macrae! (h. s. sp.)

Hæc etiam species *L. mollissimæ* affinis est, sed constanter annua videtur. Folia tenuiora minus tomentosa et facile distinguenda petiolis floralium inferiorum semipollicaribus flores fere duplo excedentibus.

15. *L. FLACCIDA* (Br.! Prod. 505), annua, glabriuscula, foliis ovatis crenatis membranaceis utrinque viridibus glabriusculis, verticillastris multifloris petiolo brevioribus, bracteis minutis, calycibus glabriusculis, ore æquali, dentibus setaceis.

Phlomis moluccana. Roxb. Fl. Ind. 3. 11.

Leucas melissæfolia. Benth. in Wall. Pl. As. Rar. 1. 62.

L. parviflora. Benth. in Wall. l. c.

Hab. in Nova Hollandia tropica Herb. Banks! in ins. Moluccis Roxburgh, in regno Burmannico ad ripas Irawaddi Wallich! (h. s. sp. e Mus. Angl. Ind.)

A *L. decemdentata* vix ac ne vix glabritie et foliis tenuioribus obtusioribus differt.

16. *L. NEPETÆFOLIA* (Benth. in Wall. Pl. As. Rar. 1. 62), herbacea? tenuiter pubescens, foliis crebris petiolatis ovato-rotundatis crenatis utrinque viridibus vel vix canescentibus, verticillastris pauci-

floris, bracteis minutis, calycibus tubuloso-campanulatis glabriusculis, ore æquali, dentibus brevibus acutis.

Hab. in Indiæ orientalis Peninsula *Herb. Madr.!* (*h. s. sp. e Mus. Angl. Ind.*)

Exemplaria suppetentia manca, sed species foliorum et calycis forma distinctissima. Rami obtuse tetragoni, tenuissime tomentosi vel pubescentes. Folia longiuscule petiolata; limbo vix pollicari obtuso, basi late truncato vel subcordato, utrinque pubescente; floralia conformia. Calyces 4 lin. longi, basi attenuati, virides, striati, dentibus latis subæqualibus.

17. *L. ANGUSTIFOLIA* (Wall. Pl. As. Rar. 1. 62), herbacea, diffusa, foliis oblongo-lanceolatis linearibusve basi angustatis glabriusculis, verticillastris 6-20-floris, bracteis minutis, calycibus tubulosis, ore æquali, dentibus brevissimis setaceis rectis.

Hab. in Napalia *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitus *L. procumbentis*, sed diversa foliis multo longioribus utrinque longe angustatis, floribus in verticillastro numerosioribus, calycibus brevioribus, dentibus brevissimis.

18. *L. PROCUMBENS* (Desf. ! Mém. Mus. Par. 11. 7. t. 3. f. 2), herbacea, diffusa, foliis ovato-lanceolatis subserratis glabriusculis, verticillastris 2-6-floris, bracteis minutis, calycibus tubulosis ore æquali dentibus lanceolato-subulatis erectis.

Phlomis biflora. *Roxb.!* *Fl. Ind.* 3. 12. *et Auct. plur. non Vahl.*

Nepeta indica. *Burm.!* *Fl. Ind.* 126.

Hab. in India orientali inferiore vulgaris: in Bundelkund *Royle!* Bengala *Wallich!* *Roxburgh, &c.*, in Peninsula *Heyne!* &c., Ceylona *Macrae!* *Leschenault!* (*h. s. sp. e Mus. Angl. Ind.*)

Tota planta fere glabra. Caules e basi crassa perenni numerosi, tenues, sæpe bipedales et ultra, parum ramosi, tetragoni, fere glabri. Folia inferiora pollicaria et ultra, superiora semipollicaria, tenuia, acutiuscula, basi rotundata vel cuneata, petiolata, tenuia, utrinque viridia fere glabra, margine serraturis paucis notata vel integerrima. Calyces parum majores quam in *L. biflora*, fructiferi sæpius reflexi. Corolla *L. bifloræ*.

19. *L. BIFLORA* (Br. Prod. 504), herbacea, diffusa, foliis ovatis grosse dentatis utrinque pubescentibus, verticillastris bifloris, bracteis minutis, calycibus tubulosis, ore æquali, dentibus subulatis.

Phlomis biflora. *Vahl.!* *Symb.* 3. 77.

Leucas, foliis rotundis, &c. *Burm.!* *Thes. Zeyl.* 140. t. 63. f. 1.

Hab. in Indiæ orientalis Peninsula *Wight!* et in ins. Ceylona *Wallich!* *Macrae!* &c. (*h. s. sp.*)

Herba annua? ramis 1-2-pedalibus, parum ramosis, tetragonis, adpresse pubescentibus tomentosisve. Folia remota, semipollicaria, utrinque viridia vel pallida, molliter pubescentia, subrugosa, acuta vel obtusa, subrugosa; floralia conformia, suprema sæpe calycibus subbreviora. Flores in verticillastro bini subsessiles. Calyces fructiferi patentes vel nutantes, fere 4 lin. longi, basi angustati, striati, pubescentes, dentibus æqualibus vel alternis brevioribus. Corollæ albæ tubo intus obscure annulato.

20. *L. PUBESCENS*, herbacea, ramis tenuiter pubescentibus, foliis ovatis crenatis basi truncatis tenuibus utrinque viridibus vel subtus pallide pubescentibus, verticillastris dense multifloris, bracteis subu-

latis calyce brevioribus, calycis tubulosi ore æquali, dentibus subulatis rectis.

L. marrubioides, β glabrior. *Benth. in Wall. Pl. As. Rar.* 1. 61.

Hab. in Indiæ orientalis Peninsula *Wight!* (*h. s. sp. e Mus. Angl. Ind.*)

Ab affine *L. marrubiodi* differt foliis calycibusque tenuiter pubescentibus nec albo-lanatis. Folia angustiora longius petiolata non rugosa. Bracteæ breviores. Flores et inflorescentia omnino *L. marrubioidis*.

21. *L. MARRUBIOIDES* (Desf. ! *Mém. Mus. Par.* 11. 6. t. 3. f. 1), herbacea, ramis pubescenti-lanatis, foliis lato-ovatis crenatis basi subcordatis rugosis supra hispidis subtus albo-lanatis, verticillastris dense multifloris, bracteis subulatis calycem subæquantibus, calycis tubulosi ore æquali, dentibus subulatis rectis.

Hab. in Indiæ orientalis Peninsula *Wight!* (*h. s. sp. comm. a cl. Wight, et e Mus. Angl. Ind.*)

Caules basi ramosi, procumbentes, ramis pedilibus sesquipedalibusve subsimplicibus tetragonis, pilis albidis reflexo-patentibus præsertim in parte superiore vestitis. Folia circiter pollicaria, inferiora petiolata; floralia subsessilia et latiora, omnia basi late cordata vel truncata, crenaturis grossis obtusis vel mucronulatis. Verticillastri remoti, dense 30-flori et ultra. Bracteæ et calyces pilis mollissimis sericeis villosa. Calyces 3-4 lin. longi, dentibus parum inæqualibus; fauce intus nuda. Corollæ albæ, tubus intus transversim annulatus; galea præsertim margine dense villosa; labium galea duplo longius; lobo medio latissimo emarginato.

22. *L. JAVANICA*.

Phlomis chinensis. *Blume Bijdr.* 829. non *Retz.*

β "foliis minoribus utrinque molliter pubescentibus."

Hab. in Java inter frutices ad ripas fluviorum, β in declivitatibus intra montem Burangrang et Tankuwan Paku *Blume*.

"P. caule ramoso scandente, ramis ad angulos obverse pilosis, foliis ovatis grosse obtuse serratis basi acutiusculis et integerrimis utrinque pubescentibus, verticillis 6-10-floris, calycibus oblongis pubescentibus 10-dentatis dentibus subulatis alternis brevioribus."—*Blume l. c.*

SECTIO IV. ASTRODON.

Astrodon. *Benth. in Wall. Pl. As. Rar.* 1. 61.

Calyx tubulosus, ore æquali, fauce sæpius villosissima, dentibus 10, sæpius maturatione stellato-patentibus. Verticillastri sæpius globosi, multiflori, solitarii vel pauci, supremis nunc capitatis. Bracteæ calycibus vix breviores.

23. *L. SUFFRUTICOSA*, ramis rufo-villosis basi foliosis, foliis sessilibus oblongo-lanceolatis linearibus integerrimis supra viridibus hispidis subtus albo-tomentosis, bracteis subulatis, calycis rufo-villosi ore truncato villosi, dentibus brevissimis subpatentibus.

Hab. in Indiæ orientalis Peninsulæ montibus Nielgherri dictis *Wight!* (*h. s. sp. comm. a cl. Wight et e Mus. Angl. Ind.*)

Caules e basi crassa lignosa plures, adscendentes vel erecti, semipedales vel vix pedales, basi foliosi, in parte superiore subnudi, pilis rufis in parte inferiore subpatentibus versus apices ramorum adpressis dense villosi. Folia 8-10 lin. longa, margine subrevoluta, basi parum angustata, supra pilis longis rigidis rufis dense hispida, subtus albo-tomentosa, nervo medio prominente hispido, floralium paria duo ad apices ramorum parum distantia, supremo sæpe sterili. Verticillastri sub-10-flori. Bracteæ acutæ, calyce sæpius dimidio breviores. Corollæ *L. ternifolia*, tubo intus exannulato.

24. *L. ROSMARINIFOLIA* (Benth. in Wall. Pl. As. Rar. 1. 61), suffruticosa, ramis adpresse villosis, foliis sessilibus linearibus integerrimis supra scabro-hirtis subtus albo-tomentosis, bracteis lanceolato-linearibus, calycis villosi ore truncato villoso, dentibus brevissimis subpatentibus.

Hab. in Indiæ Orientalis Peninsula *Wight!* (*h. s. sp. e Mus. Angl. Ind.*)

Species in herbario Wightiano proprio deest; *L. suffruticosæ* affinis, sed characteribus supra notatis distincta. Rami humiles, pilis vix rufescentibus. Folia pollicaria, multo angustiora quam in *L. suffruticosa*. Bracteæ latiores, molliter villosæ, acutissimæ, calyces æquantes.

25. *L. HELIANTHEMIFOLIA* (Desf. Mém. Mus. Par. 11. 2. t. 1. f. 1), caule basi fruticoso, ramis sericeo-lanatis subrufescentibus, foliis oppositis sessilibus oblongo-ellipticis lanceolatisve integerrimis utrinque sericeis supra viridioribus subtus candidissimis, bracteis linearibus calyce brevioribus, calycibus sericeo-villosis, ore truncato-villoso, dentibus brevissimis subpatentibus.

Hab. in Indiæ orientalis Peninsulæ montibus Nielgherri dictis *Leschenault! Wight!* (*h. s. sp. comm. a cl. Wight.*)

Vix a *L. ternifolia* differt foliis oppositis brevioribus minus candidis ramis sæpius rufescentibus.

26. *L. TERNIFOLIA* (Desf.! Mém. Mus. Par. 11. 4. t. 1. f. 2), caule basi fruticoso, ramis dense tomentosis, foliis ternatim verticillatis sessilibus oblongo-lanceolatis integerrimis utrinque sericeis subtus candidissimis, bracteis linearibus, calycibus sericeo-lanatis, ore truncato villoso, dentibus brevissimis subpatentibus.

Hab. in Indiæ orientalis Peninsulæ montibus Nielgherri dictis *Leschenault! Wight!* (*h. s. sp. comm. a cl. Wight.*)

Rami teretes, lana brevi densa albida vel rufescente vestiti, uti folia ternatim verticillati. Folia 1-1½-pollicaria, obtusa vel mucronulata, margine subtus recurvo, basi parum angustata, supra pilis adpressis sericeis canescentia, subtus lana brevi sericea vel subfloccosa candidissima, floralia minora, suprema vix calyces excedentia. Verticillastri pauci, distincti, versus apices ramorum 10-20-flori. Bracteæ numerosæ, molliter sericeo-lanatæ, acutæ, muticæ, calycem florentem subæquantes, fructifero breviores. Calyx late tubulosus, dentibus acutis, lana paucis subbrevioribus. Corollæ galea villis albis densissime obsessa, tubus intus exannulatus.

27. *L. LANCEÆFOLIA* (Desf.! Mém. Mus. Par. 11. 5. t. 2. f. 2), caule erecto rufo-tomentoso, foliis oblongo-lanceolatis subintegerrimis supra viridibus pubescentibus subtus canescentibus tomentoso-pubescentibus, bracteis calyces æquantibus, calycibus rufo-villosis, ore truncato pubescente, dentibus brevissimis bracteisque rigide mucronulatis.

Hab. in Indiæ orientalis Peninsulæ montibus Nielgherri dictis *Leschenault! Wight! &c.* (*h. s. sp. comm. a cl. Wight.*)

Caules basi lignosi? Rami erecti, duri, ultrapedales, pilis adpressis rufis dense vestiti. Folia basi in petiolum brevem angustata, 3-4-pollicaria, supra viridia, pilis brevissimis conspersa, subtus pilis subsericeis adpressis cano-tomentosa, sæpissime integerrima, rarius dentibus paucis remotis notata. Verticillastri plus pollice diametro. Corollæ galea pilis niveis dense villosa, tubus intus tenuissime pubescens, exannulatus.

28. *L. STELLIGERA* (Wall.! Pl. As. Rar. 1. 61), herbacea, erecta, pubescens, subcanescens, foliis oblongo-lanceolatis obtuse serratis glabris vel tenuissime pubescentibus, calycibus tomentosis, ore truncato intus villoso, dentibus 10, bracteisque subulatis mollibus patentibus apice revolutis.

Hab. in India orientali ad Aurungabad *Wallich!* (*h. s. c. e Mus. Angl. Ind.*)

Habitus fere *L. linifoliæ*. Caules 1½-pedales et altiores, pubescentia brevissima conspersi. Folia 2-3-pollicaria, penninervia, utrinque angustata, supra viridia, subtus pallida. Verticillastri sæpe pollicem diametro, ad apices ramorum solitarii vel præsertim in ramis primariis 2-3 approximati. Calyces et bracteæ tomento molli canescentes. Dentes calycini breves, molles, lineares, in calyce fructifero patentissimi, uti bractearum apices recurvo-hamati. Corolla alba, tubo intus transversim annulato, galea pilis albis densissimis hirsuta.

29. *L. LAMIIFOLIA* (Desf.! Mém. Mus. 11. 4. t. 2. f. 1), herbacea, rufo-villosa, foliis cordato-ovatis supra rufo-villosis subtus cano-tomentosis, bracteis lanceolato-linearibus calyces æquantibus, calycis sericei ore truncato æquali intus villoso, dentibus subulatis demum stellato-patentibus.

Hab. in Indiæ orientalis Peninsulæ montibus Nielgherri dictis *Leschenault!* (*v. s. sp. in herb. Mus. Par.*)

Caules erecti, ramosi, bipedales. Folia breviter crenata, 2-2½-pollicaria, rugosa, mollia; floralia conformia, multo minora. Verticillastri pauci, versus apices ramorum æquales, densi, multiflori. Flores *L. lanceæfoliæ*.

30. *L. HIRTA* (Spreng. Syst. 2. 743?), suffruticosa? ramis rufescenti-villosis, foliis ovatis oblongisve subcrenatis utrinque viridibus hirtis, bracteis calyces æquantibus, calycibus villosis ore truncato villosissimo, dentibus subulatis brevibus stellato-patentibus muticis.

Phlomis hirta. Heyne! *an Roth. Nov. Pl. Spec.* 264?

Leucas helianthemifolia. Benth. in Wall. Pl. As. Rar. 1. 61. non Desf.

Hab. in Indiæ orientalis Peninsula *Heyne! Wight! &c.* (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Wight.*)

Herba dura, perennis? basi sublignosa? sæpius humilis, divaricato-ramosissima, vix semipedalis, ramis rarius elongatis subpedalibus, constanter rufo-pubescentibus hispidisve. Folia vix pollicaria, venoso-rugosa, obtusa, pilis rufis rigidis plus minusve hirsuta; floralia angustiora, omnia basi rotundata vel angustata, breviter petiolata. Verticillastri sæpius ad apices ramorum solitarii. Bracteæ et calyces dense rufo-villosi. Pili ad faucem calycis densissimi, sericei. Corollæ galea pilis albis densissime oblecta, tubus intus transversim annulatus.

31. *L. VESTITA* (Benth. in Wall. Pl. As. Rar. 1. 61), herbacea, erecta, caule rufescenti-hirsutissimo, foliis ovato-oblongis crenatis hirtis viridibus vel subtus vix canescentibus, bracteis linearibus ciliato-hirtis, calycibus hirtis, ore truncato subæquali intus hirsutissimo, dentibus subulatis vix æqualibus stellato-patentibus.

Hab. in Indiæ orientalis provincia Sillet *Wallich!* et Peninsulæ montibus Madurensibus *Wight!* (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Wight.*)

Caulis robustior quam in *L. ciliata*. Folia crassa, supra pilis rufis rigidis hirta, subtus hirta vel pilis sericeis canescentia, apice obtusa, basi rotundata vel angustata. Verticillastri demum 15 lin. diametro. Calyces dense villosi, dentibus vix lineam longis, fauce pilis densissimis clausa. Corollæ tubus intus transversim annulatus, galea densissime rufo-hirta.

32. *L. CILIATA* (Benth. in Wall. Pl. As. Rar. 1. 61), herbacea, erecta, adpresse pubescens, foliis ovato-lanceolatis oblongisve serrato-crenatis utrinque viridibus, bracteis linearibus ciliato-hirtis, calycibus tubulosis, ore truncato æquali intus pilosiusculo vel nudo, dentibus elongatis subulatis hirtis stellato-patentibus.

β *hirsuta*, foliis obtusioribus calycibusque hirsutioribus.

Hab. in India Orientali: in Napalia *Wallich!* β in Peninsula *Heyne!* (*h. s. sp. e Mus. Angl. Ind.*)

Herba 1-2-pedalis, caule ramisque pilis sparsis obverse adpressis pubescentibus, apice subrufescentibus. Folia tenuia, 2-3-pollicaria, utrinque angustata; in var. α fere glabra, nervis tantum rufo-pubescentibus; in var. β sparse hispidula; floralia conformia, omnia basi in petiolum brevem angustata. Verticillastri pauci, versus apices ramorum distantes, fructiferi pollicem diametro. Bracteæ calyces æquantes. Calyces basi glabrati, apice hirti, fauce in var. α fere nuda, in var. β pilis conniventibus subclausa, dentibus fere 2 lin. longis. Corolla *L. zeylanicæ*, tubo intus transversim annulato.

SECTIO V. PLAGIOSTOMA.

Plagiostoma. *Benth. in Wall. Pl. As. Rar. 1. 60.*

Calyx turbinatus vel tubulosus, ore obliquo supra productione. Verticillastri sæpius globosi, multiflori, solitarii vel pauci, supremis nunc capitatis. Bracteæ calycibus æquales vel paulo breviores.

33. *L. STRICTA* (Benth. in Wall. Pl. As. Rar. 1. 61), herbacea, erecta, stricta, pubescenti-hirta, foliis oblongo-lanceolatis linearibusve subintegerrimis, verticillastris multifloris solitariis terminalibus, bracteis subulatis hirtis, calycibus hirtis substriatis, ore obliquo, dentibus subulatis striatis demum stellato-patentibus.

Hab. in Indiæ orientalis Peninsula *Heyne!* (*h. s. sp. e Mus. Angl. Ind.*)

Caulis erectus, parce ramosus, acute tetragonus, viridis. Folia pauca remota, 1-1½-pollicaria, basi angustata, utrinque viridia, nervo medio subtus prominente; floralia caulinis conformia, majora. Verticillastri 1-2, capitula terminalia formantes, 15-30-flori. Bracteæ subulatæ, calycem florentem æquantes. Calyx fructifer elongatus, basi glaber subnervius, apice parum incurvus, ore valde obliquo, dentibus longioribus quam in cæteris speciebus hujus sectionis. Corolla *L. zeylanicæ*.

34. *L. ZEYLANICA* (Br. Prod. 504), herbacea, erecta, pubescenti-hirta, foliis oblongo-lanceolatis linearibusve integerrimis vel paucicrenatis, verticillastris densis multifloris dimidiatis vel subæqualibus,

bracteis linearibus hirtis, calycibus basi glabris subaveniis apice striatis subincurvis, ore obliquo, dentibus abbreviatis supremis majoribus.

Phlomis zeylanica. Linn. Spec. 820. non Roxb.

Leonurus Marrubiastrum. Burm. ! Fl. Ind. 127. non. Linn.

Hab. in Ceylona ! in regno Pegu prope Rangoon Wallich ! in Java Burmann ! (h. s. sp. e Mus. Angl. Ind.)

Annua, subpedalis, ramosa, ramis pilis patentibus hirtis tetragonis viridibus. Folia distantia, basi in petiolum brevem angustata, apice obtuse acuminata, margine integerrima vel dentibus paucis remotis notata, utrinque intense viridia, paucivenia, pilis raris pubescentia vel demum glabrata. Verticillastri 1-2, ad apices ramorum 10-20-flori, sæpius nigrescentes. Calyces forma fere *L. asperæ* sed glabriores, vix apice striati, dentibus longioribus magis inæqualibus. Corolla major, alba.

35. *L. DIFFUSA*, herbacea, diffusa, pubescenti-hirta, foliis oblongis linearibusve integerrimis, verticillastri paucifloris dimidiatis remotis, bracteis linearibus hirtis, calycibus basi glabris subaveniis, apice striatis hirtis subincurvis, ore obliquo, dentibus brevibus vix inæqualibus.

L. dimidiata. Benth. in Wall. Pl. As. Rar. non Roth.

Hab. in Indiæ Orientalis Peninsula Herb. Madr. (h. s. sp. e Mus. Angl. Ind.)

Rami elongati, tenues, 1-1½-pedales. Folia subsessilia, remota, vix semipollicaria, hispidula ; floralia conformia, suprema substerilia. Verticillastri remoti, secundi, 4-12-flori. Bracteæ paucæ, calyce breviores. Calyces breves, ore truncato, dentibus brevissimis. Cæterum *L. asperæ* valde affinis.

36. *L. HYSSOPIFOLIA* (Benth. in Wall. Pl. As. Rar. 1. 60), herbacea, perennis, multicaulis, adscendens, piloso-hirta, foliis oblongo-linearibus integerrimis, verticillastri densis subæqualibus, bracteis linearibus vix pilosis, calycibus glabris subaveniis vel apice vix striatis pilis paucis hirtis, ore obliquo truncato, dentibus minutis setaceis hirtis.

Hab. in Indiæ Orientalis montibus Napalensibus et Kamaonensibus Wallich ! Deyra Dhoon Royle ! (h. s. sp. e Mus. Angl. Ind.)

Caules e basi crassa sublignosa plures, adscendentes, ramosi, pilis præsertim in parte superiore numerosis hirsuti, semipedales vel vix pedales. Folia 1-1½-pollicaria, obtusa, basi angustata, supra et subtus ad venas pilis rigidis hirsuta ; floralia conformia. Verticillastri 10-20-flori, distantes. Bracteæ calyces æquantes. Calyces turbinati basi angustati, incurvi, fere glabri, apice vix striati, dilatati, ore truncato brevissime 10-dentato. Corolla alba ? *L. zeylanicæ* ; tubus intus oblique piloso-annulatus, galea calyce dimidio longior, integerrima, hirsutissima ; labium inferius galea subtriplo longior.

37. *L. ASPERA* (Spreng. Syst. 2. 743), herbacea, pubescenti-hirta, foliis oblongis linearibusve subcrenatis viridibus, verticillastri densis æqualibus, bracteis oblongo-linearibus subulatisve hirtis, calycibus basi glabris subaveniis, apice striatis subincurvis, ore obliquo, dentibus brevibus vix inæqualibus.

Phlomis aspera. Willd. Enum. Hort. Berol. 2. 621.

Phlomis Plukenetii. Roth. Nov. Pl. Spec. 261 ?

Leucas Plukenetii. Spreng Syst. 2. 743 ?

Phlomis esculenta. Roxb. Fl. Ind. 3. 10.

Phlomis Cephalotis var. Blume Bidjr. 830 ? *

Tumba. Rheede. Hort. Malab. 10. 181. t. 91 ?

* " *P. Cephalotis* Roth. varietas, caule hirto, foliis oblongo-lanceolatis grosse August 1834. 4 L

β *Wightiana*, verticillastris parvis numerosis approximatis.

L. Wightiana. *Benth. in Wall. Pl. As. Rar.* 1. 60.

Hab. in India Orientali: a jugo Himalayano secus flum. Jumna usque ad Allahabad *Royle!* in Peninsula *Wight!* &c. in ins. Mauritio et Borbonia *Herb. Mus. Par.!* Java *Blume!* in ins. Philippinis *Com-merson!* (*h. s. sp.*)

Herba annua, sæpius erecta, semipedalis vel vix pedalis, caule breviter hispido vel tomentoso-pubescente, rarius glabrato. Folia distantia, breviter petiolata, integerrima vel paucidentata; floralia conformia, suprema sæpe sterilia. Verticillastri plerumque 10-20-flori, densi, vix semipollicem diametro. Bracteæ calycem æquantes, virides, ciliato-hirti. Calyx ore valde obliquo sed recto, dentibus rectis. Corolla calycem breviter excedens, alba; tubi annulus internus transversalis. In var. β caulis strictior, folia longiora, ad apices ramorum crebriora, verticillastri parvi, approximati, et tota planta vix pubescens, sed vix ut species propria habenda. Cæterum hæc species statura et hirsutie magnopere variat, et forsân, cum *L. dimidiata* et *hyssopifolia*, *L. zeylanicæ* mera varietas est.

38. *L. NUTANS* (Spreng. Syst. 2. 743), herbacea, pubescens, foliis ovato-oblongis subcrenatis viridibus, verticillastris multifloris distantibus, bracteis oblongis vel lanceolatis, calycibus pubescentibus striatis, fructiferis valde elongatis incurvis, apice nutanti-reflexis, ore obliquo, dentibus linearibus brevibus vix inæqualibus.

Phlomis nutans. *Roth. Nov. Pl. Spec.* 263.

Leucas decurva. *Benth. in Wall. Pl. As. Rar.* 1. 60.

Hab. in Indiæ orientalis Peninsula *Herb. Madr.!* *Heyne*, prope Segain ad ripas fluvii Irawaddi *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Exemplaria suppetentia manca, sed ob calycum forma speciem distinctissimam demonstrant. Rami pubescentes vel apice hirti. Folia latiora quam in *L. aspera*, crenaturis paucis latis obscuris. Verticillastri axillares, pollicem circiter diametro. Bracteæ ciliato-hirtæ. Calycis pars nutans sæpe parte erecta longior, apice profunde striata, dentibus acutissimis. Corolla parva.

39. *L. DIMIDIATA* (Spreng. Syst. 2. 743. non *Benth. in Wall. Pl. As. Rar.*), herbacea pubescenti-hirta, foliis ovato-oblongis subcrenatis viridibus, verticillastris multifloris subsolitariis terminalibus, bracteis lineari-subulatis hirtis, calycibus basi glabris subaveniis, apice striatis incurvo-reflexis, ore obliquo, dentibus brevibus vix inæqualibus.

Phlomis dimidiata. *Roth. Nov. Pl. Sp.* 264.

L. nutans. *Benth. in Wall. Pl. As. Rar.* 1. 60. *vix Spreng.*

Hab. in India Orientali in regno Burmannico ad ripas fluv. Irawaddi *Wallich.* (*h. s. sp. e Mus. Angl. Ind.*)

L. nutanti valde affinis, differt calycibus brevioribus, bracteis subulatis, verticillastris solitariis, et habitu foliisque potius *L. zeylanicæ*, a qua calycibus distinguitur.

40. *L. CEPHALOTES* (Spreng. Syst. 2. 743), herbacea, pubescenti-hirta, foliis ovatis oblongisve subserratis viridibus, verticillastris subsolitariis maximis globosis dense multifloris, bracteis ovato-lanceolatis

serratis utrinque pubescentibus, floribus dense capitatis terminalibus, bracteis subulatis, calycibus oblongis obliquis 8-dentatis superne pilosis, dentibus subulatis subæqualibus."—*Blume l. c.*

acutis imbricatis, calycibus apice striatis subvillosis, ore obliquo, dentibus subulatis brevibus vix inæqualibus.

Phlomis Cephalotes. *Roth. Nov. Pl. Spec.* 262.

Leucas capitata. *Desf. Mém. Mus. Par.* 11. 8. t. 4.

Hab. in India Orientali in planitiebus vulgaris *Royle* ! in Napalia et in Bengala ad ripas Gangis *Wallich* ! in Peninsula *Rottler* ! *Wight* ! &c. (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Wight.*)

Herba subpedalis, erecta vel basi decumbens, ramosa, ramis pubescentibus vel pilis patentibus hirtis. Folia petiolata, 2-4-pollicaria, basi angustato-cuneata, supra hispidula subtus pubescentia, rarius utrinque glabrata ; floralia conformia, suprema e summitate verticillastri eminentia. Verticillastri terminales, sesquipollicem et ultra diametro. Bracteæ virides, submembranaceæ, margine et nervo medio ciliato-hirtæ, calyces æquantes. Calyces basi membranacei, læves, apice nervis 10 elevatis ciliatis, fauce intus pilis paucis ciliata. Corolla alba, labio inferiore maximo obcordato ; annulus intra tubum obliquus, pilosus.

41. *L. MARTINICENSIS* (Br. Prod. 504), herbacea, pubescens, vix canescens, verticillastris distantibus maximis globosis multifloris, bracteis lanceolato-subulatis, calycibus membranaceis incurvis, ore obliquo superne productiore, dentibus subdenis subulatis supremo longissimo.

Clenopodium martinicense. *Jacq. Pl. Amer.* 173. t. 177. f. 75.

Phlomis martinicensis. *Swartz. Prod. Fl. Ind. Occ.* 88.

Phlomis caribæa. *Jacq. Ic. Rar.* 1. 11. t. 110.

Leonurus parviflorus. *Mæneh. Meth.* 401. ?

Phlomis mollis. *Schum. ! Beskr. Pl. Guin.* 263.

Hab. in utriusque orbis tropicis : in Indiæ orientalis regno Burmanico prope montem Taong Dong *Wallich* ! in Madagascariæ provincia Emirnensi *Bojer* ! in Africa tropica occidentali *Thonning* ! *Leprieur et Perrottet* ! et in America tropica, in Indiæ occidentalis ins. Trinitatis *Sieber* ! Sancti Dominici *Poiteau* ! in Brasilia *Sello* ! *A. de St. Hilaire* ! &c. (*h. s. sp.*)

Herba erecta, annua, 1-2-pedalis, caule pilis brevibus pubescente, obtuse tetragono. Folia petiolata, ovata, crenata, basi rotundata vel sæpius cuneata ; floralia angustiora, suprema lanceolata, substerilia, omnia rugosa, utrinque pubescentia, viridia, subtus pallidiora. Verticillastri axillares, demum $1\frac{1}{4}$ poll. diametro. Bracteæ numerosæ, subulatæ, ciliatæ, apice subspinescentes. Calyces fructiferi valde aucti, basi subinflati, erecti, apice valde incurvi, subreflexi, dente supremo rigido adscendente cæteris duplo triplove longiore. Corolla *L. urticæfoliæ*, parva, tenuis, alba, villosa ; tubo intus exannulato.

42. *L. LINIFOLIA* (Spreng. Syst. 2. 743), herbacea, erecta, tenuissime canescenti-pubescens vel tomentosa, foliis oblongo-linearibus integerrimis vel remote serratis, verticillastris densis subæqualibus multifloris, bracteis linearibus canescentibus, calycibus canescentibus glabrisve subaveniis superne elongatis, ore valde obliquo, dentibus inferioribus brevissimis supremo maximo.

Phlomis linifolia. *Roth. Nov. Pl. Spec.* 260.

Phlomis zeylanica. *Roxb. ! Fl. Ind.* 3. 9. *Linn. Syst. Veg.* 450. *Jacq. Ic. Rar.* 1. 11. t. 111. non *Linn. Spec.**

Leonurus indicus. *Burm. ! Fl. Ind.* 127.

Herba admirationis. *Rumph. Herb. Amb.* 6. 39. t. 16. f. 1.

* Confer Roth. Nov. Sp. Pl. 259.

Hab. in India orientali: in Bengala et Peninsula vulgatissima *Roxburgh!* *Wallich!* *Wight!* *Royle!* &c., in ins. Madagascaria *Oldenburgh!* Mauritio et Borbonia *Telfair!* *Commerson!* &c., Java *Blume!* Bourou Moluccarum *Durville!* et Philippinis *Commerson!* (*h. s. sp.*)

Herba 1-1½-pedalis, ramosa, caule, foliis, calycibusque tomento tenuissimo canescentibus. Folia 2-3-pollicaria, basi in petiolum angustata; floralia conformia. Verticillastri versus apices ramorum 2-4, distincti, infimo distante, supremis sæpius approximatis, 10-30-flori. Bracteæ setaceæ, tomentosæ, calyce fructifero dimidio breviores. Calyx ovatus, basi attenuatus, ore supra producto infra fisso, dente supremo maximo acutissimo, lateralibus utrinque tribus minutis acutis, binis infimis subevanidis. Corolla *L. zeylanicæ*, alba.

Species e genere excludenda.

L. QUINQUEDENTATA Br. = *Lasiocorys Abyssinica*.

LXXXVII. LEONOTIS.

Phlomidis sp. *Linn. et Auct.*
Leonotis. *Br. Prod.* 504.

Calyx ovato-tubulosus, 10-nervius, apice incurvus, ore obliquo sub-10-dentato, dente supremo majore. Corolla tubo sæpius exserto, intus nudo vel incomplete annulato, limbo bilabiato, labio superiore concavo erecto elongato integro, inferiore brevi patente trifido, lacinia media vix majore. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta basi nuda. Antheræ per paria sub labio superiore approximate, biloculares, loculis divaricatis acutis. Styli lobus superior brevissimus. Achenia sicca, apice obtusa.—Herbæ fruticesve. Verticillastri multiflori, sæpius densissimi. Bracteæ numerosæ, lineari-subulatae. Corollæ speciosæ, coccineæ vel flavescentes.

Chiefly South African: one species extends into India, and is now common in some of the tropical parts of America, where it has been probably carried from the old world.

1. *L. NEPETÆFOLIA* (Br. Prod. 504), herbacea, foliis ovatis crenatis, calycis dentibus omnibus spinosis supremo maximo ovato, corollis (coccineis) calyce vix duplo longioribus.

L. nepetæfolia. *Bot. Reg.* 4. t. 281.
Phlomis nepetæfolia. *Linn.!* *Spec.* 820.
Leonurus globosus. *Mænoch. Meth.* 400.
Leonurus nepetæfolia. *Mill. Dict.* n. 2.

Hab. in Africa et Asia tropica, et hinc inde in America verosimiliter ex orbe veteri allata: in Africa austro-orientali ad sinum Delagoa *Forbes!* in ins. Madagascaria! Mauritio! Java *Blume*, Indiæ orientalis

Peninsula! et in Bengala *Wallich!* &c., in India occidentali! et Brasilia *Salzmann!* *A. de St. Hilaire!* &c. (*h. s. sp.*)

Caulis annuus, crassus, erectus, 2-7-pedalis, obtuse tetragonus, sulcatus, tenuiter tomentosus. Folia longe petiolata, 2-4-pollicaria, obtusa vel rarius acutiuscula, irregulariter crenata, basi truncata vel subcordata, integerrima, in petiolo breviter decurrentia, utrinque viridia, tenuiter cano-tomentosa vel glabra; floralia oblongo-lanceolata, suprema parva. Verticillastri pauci distantes, fructiferi 2-3 pollices diametro, sæpe ultra 100-flori. Bracteæ numerosæ, lanceolato-lineares vel subulatæ, virides, apice subspinescentes, glabræ vel tenuiter tomentosæ. Calyces demum fere pollicares, tubulosi, elongati, basi attenuati, glabri, nervis obscuris medio viridibus striati, sub ore piloso-pubescentes, apice glabri, dente supremo maximo ovato acuto spinoso, tribus inferioribus lanceolatis acutissimis rigidis subreflexo-patentibus, lateralibus utrinque 2-3 brevibus acutis erectis. Corolla coccinea, extus villosa, dimidio brevior quam in *L. Leonuro*, duplo longior quam in *L. pallida*.

2. *L. PALLIDA*, herbacea, foliis ovatis acutis obtuse serratis, calycis dentibus omnibus spinosis supremo maximo ovato, corollis (flavescentibus) calyces vix excedentibus.

Phlomis pallida. *Schum. Beskr. Pl. Guin.* 262.

Hab. in Africa æquinotiali occidentali: in Senegambia *Leprieur et Perrottet!* in Guinea prope Quitta et Ursue *Thonning.* (*v. s. sp. in herb. Delessert.*)

Valde affinis *L. nepetæfoliæ*, differt foliis acutioribus brevius petiolatis, et præsertim corollis minoribus flavescentibus. Calyces omnino *L. nepetæfoliæ*.

3. *L. OVATA* (Spr. Syst. 2. 744), herbacea, foliis ovatis inciso-crenatis, calycis dentibus omnibus spinosis supremo maximo ovato, corollis calyce subtriplo longioribus.

Phlomis Leonitis. *Linn. ! Mant.* 83.

Hab. in Africa australi extratropica *Burchell!* &c. (*h. s. sp.*)

Caulis erectus, pluripedalis, obtuse tetragonus, sulcatus, tomentoso-pubescent. Folia vix pollicaria, profunde et obtuse crenata, basi late truncata vel subcordata, rugosa, supra tenuiter pubescentia, subtus venosa, tomentoso-pubescentia, superiora remota, acutiora, subincisa; floralia oblonga basi angustata, paucidentata. Verticillastri maximi *L. nepetæfoliæ*. Bracteæ lanceolato-lineares, pungentes. Calyces forma et magnitudine *L. nepetæfoliæ*, sed glabri vel tomento tenuissimo subcanescentes, rarius dorso pilis paucissimis hirti. Corolla magnitudine *L. Leonuri*, aurantiaca.

4. *L. INTERMEDIA* (Lindl. ! Bot. Reg. 10. 1850), herbacea vel suffruticosa, foliis ovato-lanceolatis inciso-dentatis, verticillastris densissimis globosis, calycibus muticis villosis, corollis calyce subtriplo longioribus.

Hab. in Africa australi ad sinum Algoa *Forbes!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Habitus *L. ovatæ*, sed folia duplo triplove longiora, obtuse acuminata, tomento paginæ inferioris, uti petiolorum et ramorum, densiore. Verticillastri *L. ovatæ* vel parum minores. Calyces ejusdem magnitudinis, sed pilis brevibus mollibus dense villosi, et dentibus (8-13) brevissimis obtusis muticis, supremo latiore vix longiore. Corolla *L. Leonuri*, parum brevior, aurantiaca.

5. *L. PARVIFOLIA*, fruticosa? foliis ovatis rugosis ramisque canescentibus, dente calycis supremo ovato spinescente inferioribus omnibus brevissimis muticis, corollis calyce subtriplo longioribus.

Hab. ad Caput Bonæ Spei *Masson!* (*v. s. sp. in herb. Banks.*)

A *L. ovata* differt foliis minoribus rugosioribus canescentibus, et calycis oris forma. Caulis lignosus videtur et humilis. Corollæ *L. Leonuri*.

6. *L. LEONURUS* (Br. Prod. 504), fruticosa, foliis oblongo-lanceolatis, verticillastris laxiusculis, calycibus tenuiter tomentoso-pubescentibus muticis, corollis calyce plus triplo longioribus.

Phlomis Leonurus. *Linn.!* *Spec.* 820. *Bot. Mag.* 14. t. 478.

Leonurus grandiflorus. *Mæench. Meth.* 400.

Leonurus africana. *Mill. Dict. n.* 1.

Hab. ad Caput Bonæ Spei *Forbes!* *Burchell!* &c. (*h. s. sp.*)

Frutex erectus, 4-7-pedalis, ramosus, ramis obtuse tetragonis sulcatis breviter tomentosis. Folia bipollicaria, obtusa et obtuse serrata, basi in petiolum brevem angustata, viridia, rugosa, subtus tenuiter tomentosa, supra tenuissime pubescentia; floralia conformia, suprema sæpius sterilia. Verticillastri nunc plures pauciflori distantes, nunc multiflori densi pauci vel interdum in capitulum approximati. Bracteæ lanceolato-lineares, acutæ, muticæ. Calyces sæpius breviter pedicellati, 1-7 lin. longi, tenuissime tomentosi, pallide virentes, apice substriati, ore parum obliquo truncato, dentibus 8-10 brevissimis subæqualibus muticis. Corolla bipollicaris et ultra, coccinea, villosa; tubus longe exsertus, intus squamis transversalibus incompletis duabus inter se sesquilineam distantibus, annulatus, fauce parum dilatata; galea 9 lin. longa; labium brevissimum: lobis ovatis acutis subæqualibus dejectis. Filamenta basi dilatata, apice tenuissima. Antheræ utrinque acutissimæ.

LXXXVIII. PHLOMIS.

Phlomidis sp. *Linn.*

Phlomis. *Br. Prod.* 504.

Phlomidopsis. *Link. Handb.* 479.

Phlomoides. *Mæench. Meth.* 403.

Calyx tubulosus, 5- vel 10-striatus, sæpius plicatus, ore æquali truncato vel 3-dentato. Corolla tubo incluso vel vix exserto, intus sæpius annulato, limbo bilabiato, labio superiore galeato carinato compresso lato integro vel emarginato, incumbente vel suberecto, inferiore patente trifido. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta superiora adnata basi in appendiculam sæpissime producta, inferiora nuda. Antheræ sub galea per paria approximatae, subbiloculares, loculis divaricatis obtusis confluentibus. Styli lobus superior brevissimus vel rarius inferioris dimidio æqualis, inferior subulatus apice stigmatifer. Achenia sicca, triquetra, apice obtusa, rarius truncata, glabra vel apice pubescentia.—Herbæ suffrutes fruticesve, in sectione prima sæpe floccoso-lanata, in secunda viridia. Folia rugosa. Verticillastri pluriflori, axillares, bracteis suffulti vel rarius nudi. Corollæ in sectione prima luteæ vel purpureæ, in secunda constanter purpureæ vel albæ.

This is a natural genus, and is also very naturally divided into two sections, which by some have been considered as separate genera, though upon characters of little importance. The species of the first

section are chiefly from the Mediterranean region, scarcely extending farther eastward than Persia, with one Cashmerian species. Those of the second commence with one east-European plant, and spread all over the mountainous and temperate parts of Asia.

CONSPECTUS SPECIERUM.

SECT. I. EUPHLOMIS. *Corolla galea maxima incumbente, labii laciniae laterales parvæ ovato-vel lanceolato-appendiculatæ, intermedia maxima latissima rotundata, sæpius emarginata vel bifida.*

§ 1. LYCHNITIS. *Folia floralia basi dilatata, flores amplexentia.*

Species unica 1. P. LYCHNITIS.

§ 2. GYMNOPLHOMIS. *Herbæ suffruticesve. Folia floralia basi angustata. Bracteæ paucæ laxæ vel nullæ. Dentes calycini molles, mutici.*

Calyces pilis longis patentibus plumosi.

Dentes calycini corolla longiores 2. P. BRUGUIERI.

Dentes calycini corolla breviores.

Bracteæ exteriores calycem subæquantes.

Calyx intus fauce villosa, dentibus e basi

lanceolata linearibus 3. P. CRINITA.

Calyx intus fauce nuda, dentibus linearibus 4. P. BILOBA.

Bracteæ brevissimæ 6. P. OLIVIERI.

Calyces lana brevi subfloccosa tomentosi, nec plumosi.

Calyx fructifer apice attenuatus, dentibus tubi dimidium æquantibus.

Folia ovato-oblonga vel lanceolata. Caulis

subsimplex 7. P. ARMENIACA.

Folia ovata, inferiora lata cordata. Caulis

ramosus 5. P. ORIENTALIS.

Calyx fructifer apice non contractus, dentibus

brevissimis 8. P. NISSOLII.

§ 3. DENDROPHLOMIS. *Frutices vel rarius suffrutices. Verticillastri multiflori. Bracteæ appressæ. Calyces mutici vel 5-mucronati.*

Bracteæ tomentosæ nec pilosæ, obtusæ vel rarius acuminatæ.

Flores purpurei.

Calyces truncati, dentibus brevissimis 10. P. ITALICA.

Calyces et bracteæ acuminatæ.

Folia oblongo-lanceolata 9. P. PURPUREA.

Folia ovato-elliptica 11. P. ELLIPTICA.

Flores flavi.

Fruticulus divaricatus, foliis obovato-rotun-

datis, vix $\frac{1}{2}$ -1-pollicaribus 12. P. LANATA.

Frutex foliis oblongo-ovatis, sæpius $1\frac{1}{2}$ -2-polli-

caribus 13. P. ANGUSTIFOLIA.

Bracteæ pilosæ, acutæ. Dentes calycini subulato-acuminati.

Bracteæ ovatæ vel ovato-lanceolatæ 14. P. FRUTICOSA.

Bracteæ lanceolato-lineares.

Folia oblongo-lanceolata, infima basi profunde cordata 15. P. FERRUGINEA.

Folia ovata vel ovato-lanceolata, omnia basi

truncata 16. P. VIRENS.

Species non satis nota 17. P. VISCOSA.

§ 4. OXYPHLOMIS. *Herbæ suffruticesve. Verticillastri sæpius multiflori. Bracteæ acutissimæ, apice rigidæ subpungentes.*

Bracteæ et dentes calycini apice uncinato-revoluta.

Calyces et bracteæ densissime lanata . . . 18. P. FLOCCOSA.

Calyces glabri? Bracteæ hirtæ . . . 19. P. BICOLOR.

Bracteæ et dentes calycini apice recta.

Folia rugosa, tomentosa vel villosa.

Folia ovata, infima amplissima.

Corolla flava.

Bracteæ lineares vel lanceolato-lineares. 20. P. RUSSELLIANA.

Bracteæ lato-lanceolatae vel oblongæ . 21. P. LUNARIFOLIA.

Corolla purpurea . . . 22. P. SAMIA.

Folia oblonga, infima vix 3-4-pollicaria . 23. P. RIGIDA.

Folia coriacea, supra læviuscula.

Folia ovato-lanceolata, subtus candidissima . 24. P. CASHMERIANA.

Folia ovato-lanceolata vel lanceolata, subtus
subviridia . . . 25. P. HERBA-VENTI.

Folia lanceolata, subtus canescentia . . 26. P. PUNGENS.

SECT. II. PHLOMIDOPSIS. *Corollæ galea suberecta, pilosa, intus et margine pilis longis barbata, labii lacinia intermedia lateralibus vix major. Herbæ virides. Verticillastri densi. Bracteæ appressæ.*

Caulis elatus, ramosus.

Calycis margines inter dentes membranaceo-producti. Flores albi.

Calycis dentes rigidi, subulati . . . 28. P. MACROPHYLLA.

Calycis dentes breves, mutici . . . 27. P. BREVIFLORA.

Calycis dentes basi submembranacei, sinibus non productis. Flores purpurei.

Calyx glaber vel pilis paucis ciliatus . . 29. P. TUBEROSA.

Calyx viscoso-pubescent . . . 30. P. AGRARIA.

Caulis simplex, humilis, vel vix 1-1½-pedalis.

Corollæ galea villosissima.

Folia floralia longissima, lineari-lanceolata,
basi longe angustata . . . 31. P. ALPINA.

Folia floralia ovato-lanceolata vel flores parum
superantia.

Calyces viscoso-pubescentes . . . 30. P. AGRARIA.

Calyces glabri vel pilosi, non viscosi.

Bracteæ exteriores magnæ, foliaceæ . 32. P. BRACTEOSA.

Bracteæ lanceolato-lineares vel subulatae, calyces æquantes.

Folia sericeo-villosa . . . 35. P. CORDATA.

Folia viridia, villosa, non sericea.

Corollæ tubus exsertus . . . 34. P. SIMPLEX.

Corollæ tubus calyce brevior . . . 33. P. LAMIIFOLIA.

Corollæ galea glabra vel vix pubescens.

Bracteæ calyces æquantes, appressæ. Calyx
tubulosus . . . 27. P. BREVIFLORA.

Bracteæ breves, subulatae, laxæ. Calyx turbinatus,
basi attenuatus . . . 36. P. RUGOSA.

SECTIO I. EUPHLOMIS.

Corollæ galea maxima, incumbens, tomentosa vel rarius villosa, intus et margine breviter subbarbata; labii laciniae laterales parvæ

appendicula lanceolata vel ovata truncata auctæ, media maxima latissime rotundata emarginata vel subbiloba.

§ 1. LYCHNITIS. *Suffrutex. Folia floralia basi late dilatata, flores amplexentia.*

1. P. LYCHNITIS (Linn.! Sp. 819), suffruticosa, cano-tomentosa, foliis sessilibus oblongo-linearibus utrinque angustatis amplexicaulibus rugosis, floralibus basi latissimis, bracteis subulatis calycibusque sericeo-pilosissimis, dentibus brevibus subulatis.

P. Lychnitis. *Bot. Mag.* 25. t. 999.

Hab. in Europæ Mediterraneæ occidentalis siccis: in Hispania! Gallia australi! Italia septentrionali! (v. v. et h. s. sp.)

Caules e basi lignosa plures, subsimplices, erecti, 1-1½-pedales, tomento denso subfloccoso vestiti. Folia caulina basi connato-amplexicaulia, 2-3 poll. longa, vix 4 lin. lata, obtusa, margine integerrima, supra viridia vel canescentia, subtus venosissima, albo-tomentosa; floralia basi abrupte dilatata in bracteam latissimam rugosam verticillastrum amplexentem et calyces æquantem, suprema omnino bractæformia acumine brevissimo. Bracteæ mollissimæ, uti calyces semipollicares et pilis longissimis mollissimis sericeis subpatentibus dense obsessæ. Dentes calycini basi ovato-truncati, apice in acumen subulatum molle abeuntes. Corolla lutea, calyce duplo longior; tubus glaber tenuis intus sub staminum insertione incomplete piloso-annulatus; faux æqualis; labium superius oblongo-semicirculare, extus tomentosum, intus marginem versus pilosum, inferius parum longius; lobis lateralibus brevibus dente lanceolato auctis, medio lato breviter emarginato. Staminum superiorum filamenta basi in appendiculum brevissimum obtusum subproducta.

§ 2. GYMNOPLHOMIS. *Herbæ perennes vel suffrutices. Folia floralia basi angustata. Verticillastri pauciflori. Bracteæ paucae, laxæ vel nullæ. Dentes calycini molles, mutici.*

2. P. BRUGUIERI (Desf.! Mém. Mus. 11. 9. t. 5), perennis vel suffruticosa, floccoso-tomentosa, candidissima, foliis ovato-oblongis basi rotundato-cuneatis dense lanatis, verticillastris subsexfloris, bracteis linearibus laxis, calycibus mollissime pilosissimis, dentibus linearibus mollibus plumosis corollas superantibus.

Hab. in Persia prope Kermadan *Olivier et Bruguère!* (v. s. sp. in *herb. Mus. Par.*)

Suffrutex pedalis, tota lana candidissima subfloccosa dense obsessa. Caules subsimplices. Folia 2-3-pollicaria, acutiuscula, subcrenata, rugosiuscula. Verticillastri approximati. Corolla purpurea, paulo minor quam in P. *Lychnitide*. Filamenta superiora basi incrassata vix appendiculata.

3. P. CRINITA (Cav.! Ic. Rar. 3. 25. t. 247), perennis vel suffruticosa, floccoso-lanata, candidissima, foliis ovato-oblongis basi rotundato-truncatis radicalibus subcordatis crassissimis utrinque dense lanatis, floralibus basi angustato-rotundatis, verticillastris 6-10-floris, bracteis linearibus laxis, calycibus mollissime pilosissimis, dentibus linearibus mollibus muticis corollis brevioribus.

Hab. in Hispania *Cavanilles!* L. *Dufour!* (v. s. sp. in *herb. Schult. et Smith.*)

Caules e basi perenni sublignosa erecti, 1-1½-pedales, lana alba floccosa dense
August 1834. 4 M

obtecti, apice subpaniculato-ramosi. Folia radicalia, longe petiolata, 2-3-pollicaria, obtusa, subintegerrima, crassissima, nervis sub lana densa fere omnino reconditis, caulina minora oblonga, lana floccosa, venis subtus prominentibus, superiora et floralia sessilia, acuta, suprema a basi parum latiore, acuminata, omnia patentia, nec flores amplectentia. Verticillastri et flores magnitudine *P. Lychnitidis*, in racemo paniculato-ramoso dispositi. Bracteæ nonnullæ calyces subæquantes, molles, pilosolanatæ. Calyces lana brevi alba, et pilis longis numerosis patentibus obtecti. Dentes tubo breviores, basi parum dilatati. Corolla *P. Lychnitidis*, tubus intus basi pubescens, exannulatus. Filamentorum superiorum appendicula brevis, obtusa, pilosa. Antheræ ovatæ, confluentim uniloculares.

Cavanilles's figure of this plant is one of the worst of his whole book.

4. *P. BILOBA* (Desf.! Fl. Atl. 2. 25. t. 127), perennis vel suffruticosa, lanata, foliis ovato-oblongis basi rotundatis utrinque subfloccosotomentosis, verticillastris 4-6-floris, bracteis linearibus laxis, calycibus mollissime pilosis, dentibus linearibus mollibus acutis muticis.

Hab. in Atlante prope Mayane Algeriæ *Desfontaines!* (v. s. sp. in herb. *De Candolle*.)

“Caules herbacei, erecti, ramosi, 6-9-decimetr. villosolanati, tetragoni, angulis obtusis. Folia inferiora petiolata, superiora sessilia, ovato-oblonga, quandoque ovata, rugosa, vix crenata, 5-10 centimetr. longa, 2-3 lata, tomentosa, canescentia villis ramosis brevissimis. Verticilli florum distincti, 4-flori. Flores sessiles aut brevissime pedicellati. Bracteæ lineari-filiformes, longitudine calycis, villis longis densis canescentibus obductæ. Calyx oblongus, teres, villosolanigerus, semiquinquefidus, laciniis linearibus acutis. Corolla magnitudine *P. Herba-venti*, purpurea, extus villosotomentosa. Labium superius arcuatim compressum, sæpe profunde bipartitum, inferius bilobum, lobi 2 laterales breves, parvi, medio maximo ovato obtuso sulcato.”—*Desf. l. c.*

Not having had leisure to examine this plant accurately, I have copied *Desfontaines'* description; but in the specimen I saw, the upper lip of the corolla certainly did not appear to be bifid.

5. *P. ORIENTALIS* (Mill.! Dict. n. 9), perennis vel suffruticosa, floccoso-lanata, foliis ovatis infimis basi cordatis rugosissimis utrinque villosis lanatisve, floralibus basi angustatis, verticillastris 6-10-floris, calycibus elongatis mollissime pilosis, dentibus linearibus mollibus acutis plumosis.

Hab. in Syria prope Aleppo *Russell!* circa Smyrnam *De Candolle*. (v. s. sp. in herb. *Banks*, in eadem pagina cum *P. Nissolii*.)

Habitus fere *P. Nissolii*, sed calycibus distinctissima. Folia caulina majora, crassiora, villosiora, lana rarius subfloccosa. Bracteæ in verticillastris inferioribus paucae, subulatæ, calyces æquantes, in superioribus brevissimæ subnullæ.

6. *P. OLIVIERI*, fruticosa, lanata, foliis petiolatis ovatis basi angustatis infimis cordatis rugosis junioribus densissime lanatis, verticillastris paucifloris, bracteis abbreviatis linearibus, calycibus hispidolanatis, dentibus lanceolato-linearibus obtusis.

Hab. in Persia inter Bagdad et Kermachan, et inter Kermachan et Armadan *Olivier et Bruguère!* (v. s. sp. in herb. *Mus. Par.*)

Calyces et bracteæ *P. Armeniacæ*, sed hispidiora, et foliis certe species distincta. Calyces minus pilosi et caules simpliciores quam in *P. orientali*.

The above notes were made in the Paris herbarium some years ago. I have not since seen the plant, nor is it present to my recollection, excepting that at the time it struck me as a very distinct species.

7. *P. ARMENIACA* (Willd. Spec. 3. 119), perennis vel suffruticosa, subfloccoso-lanata, foliis ovato-oblongis lanceolatisve infimis basi cordatis, floralibus angustatis, verticillastris paucifloris, bracteis laxis subulatis, calycibus tomentoso-lanatis fructiferis apice contractis, dentibus lanceolato-linearibus acutis muticis.

Hab. in Armenia *Tournefort* ! in siccis lapidosis montium Talüsch prope pagos Perimbal et Swant *C. A. Meyer* ! (*h. s. sp. comm. a cl. Meyer.*)

Caules e basi sublignosa erecti, 1-1½-pedales, simplices, floccoso-lanati. Folia radicalia longe petiolata, obtusa, basi profunde et late cordata, margine obscure crenata, juniora densissime albo-lanata, adulta rugosa, supra subviridia villosolanata, subtus subfloccoso-tomentosa, caulina angustiora acutiora basi minus cordata; floralia basi angustata vel rotundata, omnia petiolata, patentia. Racemi simplices. Verticillastri distantes, plerumque sexflori. Bracteæ paucae, sæpius brevissimæ, vel 2-3 calycem subæquantes. Calyces 7 lin. longi, sessiles, basi oblongi, sub-5-angulati, tomento albido subfloccoso obtekti. Corolla flava *P. Lychnitidis*. Tubus basi intus squamis 5 pilosissimis annulatus, quarum 4 in stamina abeunt, et 2 superiores crassiores et densius pilosæ sunt. Filamenta vero cæterum exappendiculata.

8. *P. NISSOLII* (Linn. ! Sp. 819), perennis vel suffruticosa, dense subfloccoso-lanata, foliis petiolatis ovato-oblongis basi profunde cordatis rugosissimis, verticillastris paucifloris, bracteis brevissimis, calycibus dense lanatis, dentibus ovato-acuminatis mollibus muticis.

Hab. in Oriente prope Smyrnam *Fleischer* ! Aleppo *Russell* ! (*h. s. sp. ex Un. Itin. Wurtemb.*)

Caules e basi perenni sublignosa erecti, 1-1½-pedales, crassi, obtuse tetragoni, sulcati, uti foliorum pagina utraque, bracteæ, et calyces, lana brevi velutina vel subfloccosa canescente vel flavescente vestiti. Folia infima petiolata, 4-5 poll. longa, 2-2½ lata, crenulata, basi profunde cordata auriculis rotundatis, superiora minora et minus cordata, suprema uti floralia infima basi longe angustata, omnia crassa, rugosissima; floralia suprema oblongo-lanceolata, calyces æquantia. Racemi paniculato-ramosi. Verticillastri semipollicem ad pollicem distantes. Bracteæ vix lineam longæ, subulatæ. Calyx semipollicaris, crassus, mollis, dentibus erectis, acumine brevi obtuso. Corolla *P. Lychnitidis*, sed labium superius breviter acuminatum, et inferioris lobus intermedius profundius emarginatus quam in *P. Lychnitide*; tubus intus infra staminum insertionem piloso-annulatus. Filamenta superiora basi in appendiculam oblongam rectam obtusam producta.

§ 3. *DENDROPHLOMIS*. *Frutices vel rarius suffrutices. Verticillastri densi. Bracteæ appressæ, numerosæ, calyces subæquantes. Calyces sæpius truncati, mucronati.*

9. *P. PURPUREA* (Linn. ! Sp. 818), fruticosa, ramis floccoso-tomentosis, foliis oblongis obtusis crenatis basi truncatis subcordatisve rugosissimis supra subviridibus subtus albo-tomentosis, bracteis oblongo-lanceolatis, calycibusque molliter albo-tomentosis, dentibus calycinis lanceolatis molliter acuminatis.

P. ferruginea. Mill. ! Dict. n. 12.

P. salviæfolia. Jacq. Hort. Schænbr. 3. 58. t. 359.

Hab. in Hispania australi prope Malaga *Durand* ! *Salzmann* ! &c. (*h. s. sp. et v. s. sp. in herb. plur.*)

Frutex. Rami, foliorum pagina inferior, bracteæ, et calyces, tomento denso floccoso obruti. Folia caulina basi truncata vel leviter cordata; floralia ovato-

lanceolata, basi rotundata vel cuneata, verticillastro multo longiora, omnia leviter crenulata, supra villosa nec tomentosa. Bracteæ numerosæ dense imbricatæ, calyces æquantes, uti dentes calycini acumine molli latitudinem tubi calycis fere æquante superatæ. Corolla roseo-purpurascens. Labium superius extus tomentoso-villosus, inferius vix longius, lobis lateralibus breviter emarginatis, dente altero obtusissimo, altero lanceolato-acuminato, lobo intermedio subintegro. Annulus internus dense pilosus. Filamenta superiora basi subulato-producta.

10. *P. ITALICA* (Sm.! Spicil. 1. 6), fruticosa, floccoso-tomentosa, foliis oblongo-lanceolatis obtusis basi truncatis rugosis, verticillastris densis, bracteis linearibus obtusis adpressis calycem subæquantibus floccoso-tomentosis, calycis truncati dentibus brevissimis obtusis muticis.

P. rotundifolia. Mill. Dict. n. 13.?

Hab. in regione Mediterranea: in Hispania? ins. Balearicis *Cambessèdes*! Italia *Persoon.* (*h. s. sp. comm. a cl. Cambessèdes.*)

Frutex humilis. Rami suberecti, pedales, simplices, uti foliorum pagina inferior, calyces, et bracteæ, lana floccosa albida vel subferruginea obtekti. Folia omnia petiolata, 2-3-pollicaria, rugosa, crassa, utrinque lanata, sed lana paginae superioris subvelutina, obscure crenata; floralia suprema parva. Verticillastri pauci, distantes, 6-10-flori. Calycis margo potius 5-crenatus quam dentatus. Corolla purpurascens. Filamenta superiora sub insertione parum incrassata, in annulo tubi obliquo piloso terminata. A *P. purpurea* differt calycibus bracteisque.

11. *P. ELLIPTICA*, fruticosa, subfloccoso-tomentosa, foliis ovato-ellipticis obtusis basi truncatis rugosissimis subtus vel utrinque floccoso-tomentosis, verticillastris densis multifloris, bracteis lanceolato-linearibus obtusiusculis rigidis floccoso-lanatis, calycis truncati dentibus linearibus rigidis pungentibus.

Hab. in Persia *D'Arcy*! (*v. s. sp. in herb. Lambert.*)

Rami versus apices demum glabrati. Folia pollicaria, supra demum denudata, juniora utrinque tomento brevi floccoso alba. Verticillastri sub-10-flori. Corollæ purpurascens.

12. *P. LANATA* (Willd. Enum. Hort. Berol. Suppl. 41), fruticosa, ramis divaricatis subfloccoso-lanatis, foliis parvis ovato-subrotundis obtusissimis basi rotundato-cuneatis rugosissimis supra viridibus subtus albo-lanatis, bracteis ovato-lanceolatis obtusis calyce brevioribus calycibusque albo-lanatis, dentibus calycinis brevissimis obtusis vel rigide submucronulatis.

P. parvifolia. Presl. Del. Prag. 86.

P. microphylla. Sieb. in Bot. Zeit. 1823. 2. 598.

Hab. in Calabria *Tenore*! Creta *Tournefort*! *Sieber*! (*h. s. sp. comm. a cl. Schult.*)

Fruticulus divaricato-ramosissimus, ramis obtuse tetragonis, lana ferruginea vestitis. Folia vix semipollicaria, subintegerrima; floralia oblongo-cuneata. Verticillastri in ramis solitarii vel bini remoti, 6-8-flori. Bracteæ calyce vix dimidio longiores, lana alba subfloccosa. Calyces semipollicares. Corollæ flavæ; labium superius extus velutino-tomentosum, labii inferioris lobi laterales dente lanceolato aucti, medio profunde emarginato. Annulus intra tubum obliquus, dense pilosus. Stamina superiora basi in appendicem obtusum subrectum longe producta.

13. *P. ANGUSTIFOLIA* (Mill. Dict. n. 2), fruticosa, ramis floccoso-

tomentosis, foliis ovatis oblongisve obtusis basi truncatis rugosissimis supra canescentibus subtus albo-tomentosis, bracteis lanceolatis mollioribus albo-tomentosis muticis, calycibus albo-tomentosis, dentibus truncatis mucronatis brevissimis rigidis.

P. flavescens. Mill. Dict. n. 10.

Hab. in rupibus deserti Sinaici *N. Bové!* in Caramania *Herb. Lambert*, et in insulis Archipelagi Græci? (*h. s. sp. a cl. Bové lect.*)

A *P. purpurea* differt caule elatiore et calyce truncato, dentibus 5 obscuris brevissimis, et mucrone brevi acutiusculo terminatis. Folia forma *P. purpureæ* vel *P. fruticosæ angustifoliæ*; ab hac bracteis differt. In exemplaribus in horto Monspeliensi cultis lana canescens; corollæ magnitudine *P. purpureæ*, ochroleucæ, tubo intus oblique annulato, filamentis superioribus supra annulum in appendicem elongatam acutam productis. In exemplaribus Boveanis (quæ *P. flavescens* Mill.) tota planta flavescit, lana præsertim in calycibus foliisque junioribus aurea, calyces majores (8 lin. longi); corolla parum major, et filamentorum appendicula apice sæpe bifida, sed omnia ad eandem speciem referenda videntur.

14. *P. FRUTICOSA* (Linn.! Sp. 818), fruticosa, ramis floccoso-tomentosis, foliis ovatis oblongisve basi rotundato-cuneatis rugosis supra viridibus subtus albo-tomentosis, verticillastris dense multifloris, bracteis lato-ovatis vel ovato-lanceolatis acutis subviridibus ciliatis villosis, calycis villosi dentibus truncatis acumine subulato rigido subrecurvo vel patente.

P. fruticosa. Bot. Mag. 43. t. 1843. Sibth. et Sm.! Fl. Gr. 6. 51. t. 563.

P. ferruginea. Hortul. non Ten. nec Mill.

P. latifolia. Mill.! Dict. n. 3.

Hab. in regionis Mediterraneæ siccis apricis montosis: in Sicilia *Gussone*, Aprutia *Tenore*, Græcia *Beaupré!* *Sibthorp!* &c., in Oriente *Olivier et Bruguère!* (*h. s. c. et v. s. sp. in herb. plur.*)

Frutex 2-4-pedalis, divaricato-ramosissimus. Rami tomento denso floccoso lanati, sæpe flavescens. Folia 2-4-pollicaria, nunc integerrima, nunc plus minusve crenata, nunc lato-ovata, nunc vix *P. purpurea* latiora, supra villosa, viridia vel vix canescentia, subtus venis prominentibus reticulata, tomento brevi candida; floralia ovata, subsessilia, verticillastro parum longiora. Verticillastri ad apices ramorum solitarii vel bini, 20-30-flori. Bracteæ exteriores sæpius latissimæ, ovatæ, calyce breviores, interiores vel rarius fere omnes calycem æquantes, oblongo-cuneatæ, omnes breviter acuminatæ, crassæ, molles, virides, tomento canescente pubescentes, et pilis longis ciliatæ. Calyces 8-10 lin. longi, dentibus truncatis, acumine brevi subrecurvo. Corolla flava, conspicua. Labium superius extus villosum, inferius duplo longius (ultra pollicem longum), lobis lateralibus brevibus acumine lanceolato auctis, intermedio maximo profunde emarginato, laciniis divaricatis lato-rotundatis. Annulus internus dense pilosus. Filamenta superiora in appendiculam recurvam basi producta.

15. *P. FERRUGINEA* (Ten.! Fl. Nap. 2. 36. t. 75), fruticosa, ramis laxo floccoso-tomentosis, foliis oblongo-lanceolatis obtusis crenulatis basi cordatis rugosissimis supra villosis viridibus subtus laxo floccoso-tomentosis, bracteis lanceolatis hispidis, calycis villosi fauce longe pilosa, dentibus abbreviatis rigidis subulatis.

β ? *cretica*, foliis lanato-villosis canescentibus, bracteis lineari-subulatis.

P. fruticosa. Sieb. Pl. Cret. Exs.

P. cretica. Presl.! Del. Prag.

Hab. in Lucania et Japygia *Tenore* ! β in Creta *Sieber* ! (*h. s. c.*,
et *v. s. sp.*)

Rami ferrugineo-purpurei, lana brevi laxissima obsessi. Petioli uti nervi
paginæ inferioris foliorum densius floccoso-tomentosi. Folia 2-3 poll. longa,
5-9 lin. lata, supra bullato-rugosissima, atro-viridia, pilis canescentibus villosa.
Verticillastri 12-20-flori. Bracteæ et calyces virescentes, subviscosi, ciliato-hispidi,
nec tomentosi; bracteæ vix acutæ; calycis faux intus pilis longis erectis ciliata;
dentes obtusissimi, truncati, mutici vel breviter mucronati. Corolla lutea, extus
dense tomentosa. Labium inferius superiore paulo longius; lobis lateralibus extus
longe acuminatis, intermedio breviter emarginato. Annulus internus dense pilosus.
Filamenta superiora basi in appendiculam brevem acutam producta.

Exemplaria Cretensia parum diversa dentibus calycinis longioribus, calycibus
bracteisque molliter villosioribus, et foliis magis tomentosis; sed ad eandem speciem
referenda videntur.

16. *P. VIRENS* (DC.! Cat. Hort. Monsp. 132), fruticosa, ramis
vix tomentosis, foliis petiolatis ovatis obtusis crenatis basi truncatis vel
subcordatis utrinque viridibus vel subtus vix tomentosis, verticillastris
multifloris, bracteis lanceolato-linearibus ciliatis, calycibus hispidis,
dentibus truncatis subulato-acuminatis rigidis subpatentibus duobus
longioribus.

Hab. in Oriente? *De Candolle*. (*h. s. c.*)

P. ferrugineæ affinis, sed foliis latioribus virescentibus et vix rugosis et calycibus
distincta. Foliorum forma fere *P. fruticosæ*, minus rugosa quam in omnibus speci-
ebus fruticosis, supra sparse villosula, subtus tomento tenui subfloccoso parce obsessa.
Verticillastri sub-16-flori. Bracteæ calycem æquantes, ciliato-hispidæ. Calycis
anguli ciliati, cæterum fere glabri, 6-7 lin. longi, dentibus duobus exterioribus
acumine recto 2 lin. longo subulato, interioribus acumine brevissimo recurvo.
Corolla *P. ferrugineæ*.

17. *P. VISCOSA* (Poir. Dict. 5. 271).

Hab.

“*P. foliis viridantibus hispidis cordato-ovatis, calycibus dentibus subulatis,*
bracteis linearibus concavis acutis.

“*Caules tetragoni, uti petioli, bracteæ, et calyces pilis nigrescentibus, viscoso-*
glandulosis obsessi, ramosi. Folia petiolata tenuia, obtusa, apice parum angusta,
subtus atroviridia, pilis subtomentosis obsessa, supra grisea, pilis fauciculatis his-
pida. Flores in verticillis numerosi. Bracteæ calyces subæquantes, angustæ, subu-
latæ, spinosæ, basi subdilatatæ et concavæ, crinitæ, ciliatæ, viscoso-villosæ. Calyces
tubulosi, angulati, pilosi, ore dilatato, dentibus subæqualibus longis subulatis
*patentibus acutissimis apice subreflexis ciliatis pungentibus. Corolla fere *P. fru-**
ticosæ, parum major, sulphurea; labio superiore tenuiter pubescente obtuso sub-
emarginato, inferiore trifido, laciniis lateralibus brevibus sublanceolatis, intermedia
maxima rotundata breviter emarginata.”—Poir. l. c.

An eadem ac *P. virens*?

§ 4. *OXYPHLOMIS. Herbæ suffruticesve. Verticillastri sæpius*
multiflori, rarius vix sexflori. Bracteæ acutissimæ apice rigide,
subpungentes.

18. *P. FLOCCOSA* (Don.! in Bot. Reg. 15. t. 1300), herbacea? vel
suffruticosa, ramis floccoso-lanatis, foliis ovato-oblongis basi cordatis
supra subviridibus rugosissimis subtus floccoso-lanatis, verticillastris
dense multifloris, bracteis linearibus albo-lanatis, dentibusque calycinis
apice subulatis rigidis glabris uncinatis.

Hab. in Ægypto. (*h. s. c. e Hort. Soc. Hort. Lond.*)

Caules bipedales, ramosi, lana longa intertexta nivea dense obtecti. Folia 3-5-pollicaria, obtusissima, subcrenata, basi auriculis rotundatis cordata, sinibus subclausis, supra pilis canescentibus villosa, lana subtus laxa candida. Verticillastri pauci, distantes, magni, 20-30-flori. Calyces et bracteæ lana nivea densissima obtectæ. Corolla flava magnitudine *P. samia*; tubus intus pilis paucis annulatus. Filamentorum superiorum appendicula brevis, obtusa.

19. *P. BICOLOR*.

P. samia, β bicolor. *Viv. Fl. Lib. Spec.* 30. t. 15. f. 2.

Hab. in Lybiæ montibus Cyrenaicis *Viviani*.

“Var. corolla extus intense lutea, labio inferiore superne purpurascente, bracteis integris, calycibus mucronatis mucronis nigrescentibus glabris uncinatis.

“Corolla extus lutea, habituque præsertim omnino *P. fruticosam* refert. Bracteæ in meis speciminibus basi non coalitæ ut in *P. samia* dicitur, non ideo tamen intacta reliquorum characterum concordantia diversam speciem crediderem.”—*Viv. l. c.*

A *P. samia* certe distinctissima: an *P. floccosa*? sed ex icone Vivianiano calyces et bracteæ hirta nec lanata.

20. *P. RUSSELLIANA* (Lag. MSS.), herbacea, ramis elatis subsimplicibus, foliis radicalibus amplissimis ovatis basi profunde cordatis caulinisque rugosis supra viridibus subtus canescentibus tomentosis, verticillastris maximis multifloris, bracteis linearibus acutissimis, calycibusque viridibus pubescentibus, calycis truncati dentibus longis rigidis subulatis patentibus.

P. herba-venti var. *Russ.!* *Nat. Hist. Alep.* 2. 269. t. 16.

P. lunarifolia, β *Russelliana*. *Bot. Mag.* 52. t. 2542.

Hab. in Syria prope Aleppo *Russell!* (*h. s. c. et v. s. sp.*)

Caules 3-5-pedales, crassi, obtuse tetragoni, tomento laxo albo lanati. Folia radicalia, numerosa, longe petiolata, limbo 6-8-pollicari, obiter crenata basi auriculis rotundis profunde cordata, supra molliter rugosa, hispida, subtus tomento laxo brevi canescentia, caulina inferiora angustiora, basi minus cordata; floralia breviter petiolata, basi rotundata, apice acuminata. Verticillastri versus apicem caulis plures, remoti, floribus in quoque verticillastro 40-50. Bracteæ numerosissimæ, subconvolutæ, calycem æquant. Corolla lutea, extus tomentosa; lobis lateralibus ovatis lanceolato-acuminatis, medio latiore, labium superius parum supereminente breviter emarginato. Annulus internus valde obliquus, dense pilosus. Filamenta superiora in appendiculam subulatam longe producta.

21. *P. LUNARIFOLIA* (Sibth. et Sm. Prod. Fl. Gr. 414), caule herbaceo elato pubescente, foliis ovatis supra rugosis subtus canescenti-tomentosis, verticillastris multifloris, bracteis lato-lanceolatis oblongisve acutis subciliatis calycibusque viridibus, calycis apice truncati submembranacei dentibus subulatis rigidis pungentibus.

Hab. in variis Peloponnesi locis, et in monte Atho *Sibthorp!* (*v. s. sp. in herb. Sibthorp.*)

Exemplar in herbario Sibthorpiano pessimum, sed a *P. Russelliana* bracteis triplo latioribus distinctum videtur. Corolla flava.

22. *P. SAMIA* (Linn. Spec. 819), caule herbaceo elato pubescente, foliis ovatis supra rugosis subtus canescenti-tomentosis, verticillastris multifloris, bracteis linearibus acutissimis pungentibus, calycibusque viridibus pubescentibus, calycis elongati plicati dentibus lanceolato-subulatis rigidis pungentibus.

P. samia. *Vent. Choix. t. 4. Sibth. et Sm. ! Fl. Gr. 6. 52. t. 564. Bot. Mag. 44. t. 1891.*

Hab. in Eubæa *Sibthorp ! Caramania Olivier et Bruguière. (v. s. sp. in herb. Sibthorp, et s. c. in herb. plur.)*

Affinis *P. Russellianæ*. Caulis minus tomentosus. Verticillastri interdum 10-15-flori. Calyx 9-10 lin. longus, pubescentia viscosa. Corolla purpurea.

23. *P. RIGIDA* (Labill. ! *Ic. Pl. Syr. Rar. 3. 15. t. 10*), herbacea, foliis oblongo-lanceolatis rugosis subfloccoso-tomentosis nervis petiolisque pilosis, verticillastri multifloris, bracteis subulatis rigidis pungentibus, calycis hirsuti dentibus subulatis rigidis.

Hab. in arenosis juxta Damascum *Labillardière ! (v. s. sp. fol. et flores in herb. Lambert.)*

Caules e basi perenni erecti, bipedales, tetragoni, pilis brevibus lanati, et aliis longissimis patentibus, uti petioli, nervi foliorum, bracteæ, et calyces, hirsuti. Folia petiolata, obtusa, crenulata, infima basi cordata, caulina rotundato-cuneata. Verticillastri magnitudine fere *P. samia*. Calyces forma fere *P. Lychnitidis*, pilis longissimis subpapposi, dentibus lanceolatis spinula brevi terminatis. Corolla flava, fere *P. Lychnitidis*; labium galea longius, loborum lateralium appendicula majuscula, ovato-truncata. Filamenta sec. *Labillardière* non appendiculata.

24. *P. CASHMERIANA* (Royle ! *Benth. in Hook. Bot. Misc. 3. 382*), herbacea, erecta, caule dense floccoso tomentoso, foliis ovato-lanceolatis obtusis versus apicem crenatis basi late rotundatis molliter rugosis supra pubescentibus villosisve subtus dense albo-tomentosis, bracteis subulatis ciliatis calyce longioribus, calycis floccoso-lanati dentibus subulatis rigidis patentibus pilosis.

Hab. in India orientali in valle Cashmeriano *Royle ! (h. s. sp. comm. a cl. Royle.)*

Specimina suppetentia manca, sed evidenter a *P. herba-venti* et *P. pungente* specie distincta. Folia majora et latiora, subtus, uti caules et calyces, dense lana alba floccosa vestita. Flores et præsertim corollæ majores. Galea dense tomentoso-villosa. Labium inferius galea longius, lobo medio latissimo.

25. *P. HERBA-VENTI* (Linn. ! *Sp. 819**), herbacea, erecta, divaricato-ramosissima, ramis longe pilosis, foliis oblongo-lanceolatis crenatis basi rotundatis coriaceis utrinque viridibus vel subtus canescentibus supra lucidis scabriusculis, bracteis subulatis ciliatis calyce longioribus, calycis hirsuti dentibus subulatis rigidis subpatentibus.

P. Herba-venti. Bot. Mag. 51. t. 2449. Sibth. et Sm. ! Fl. Gr. 6. 51. t. 564.

β tomentosa.

Hab. in regionis Mediterraneæ siccis: in Hispania *Pavon ! Sicilia Gussone ! Italia omni ! Græcia Sibthorp ! &c. Tauria Pallas ! Bieberstein, &c. (v. v. et h. s. sp.)*

Herba 1-1½-pedalis. Rami rigidi, virides vel subpurpurascens, obtuse tetragoni, sulcati, pilis longis villosi nec tomentosi. Folia viridia, siccitate coriacea, inferiora sæpe 6-8 poll. longa; floralia sessilia, conformia, sed multo minora, omnia

* Both this and the *P. pungens* are in the Linnæan herbarium under the name of *P. herba-venti*.

tamen verticillastrum multo superant, supra glaberrima, subtus venoso-reticulata, pallida vel juniora subcanescentia. Verticillastri 10-20-flori. Bracteæ et calyces pilis patentibus hispidissima. Corolla purpureo-violacea, extus tomentosa. Labii inferioris lobi laterales basi lanceolati, acumine lineari, intermedius breviter emarginatus, labium superius æquans. Annulus internus pilosissimus, parum obliquus, subinterruptus. Filamenta superiora basi in appendicem acutam subrecurvam producta. In var. β caulis minus pilosus, et folia subtus tomento floccoso canescentia, sed foliis crenatis a *P. pungenti* constanter distinguitur.

26. *P. PUNGENS* (Willd. Spec. 3. 121), herbacea, divaricato-ramosa, ramis cano-tomentosis, foliis breviter petiolatis ovato-lanceolatis integerrimis serratisve basi rotundatis supra lucidis viridibus scabriusculis subtus cano-tomentosis, bracteis subulatis ciliatis calyce sublongioribus, calycis hirsuti dentibus subulatis rigidis subpatentibus.

P. pungens. Sw. Brit. Fl. Gard. 4. t. 33.

Hab. in Europæ austro-orientalis et Asiæ occidentalis siccis montosis: in Galicia *Besser*, Græcia? Bessarabia *Tardieu*! Tauria *Pallas*! *Durville*, &c., Troade *Olivier et Bruguère*, in Caucaso *Bieberstein*, in montibus *Talüsch* et *Beschtou* *C. A. Meyer*, in Persia *Michaux*! (*h. s. sp.*)

Ab affini *P. herba-venti* distinguitur caule tomentoso-pubescente nec piloso, foliis angustioribus integerrimis serratisve nec crenatis, subtus constanter tomentosis; verticillastris numerosioribus, sæpius 6-10-floris; calycibus cano-tomentosis, dentibus parum longioribus.

SECTIO II. PHLOMIDOPSIS.

Phlomidopsis. *Link Handb.* 479.

Phlomoides. *Mænnch. Meth.* 403.

Corollæ galea suberecta, pilosa, intus et margine pilis longis barbata, labii inferioris lobus medius lateralibus vix major. Herbæ virides, piloso-hirtæ, rarius sublanatæ. Verticillastri densi. Bracteæ appressæ. Corollæ purpureæ vel albæ.

27. *P. BREVIFLORA* (Benth. in Wall. Pl. As. Rar. 1. 62), herbacea, erecta, glabriuscula, foliis petiolatis lato-ovatis acuminatis crenatis basi truncatis subcordatis supra hispidulis subtus glabris, bracteis linearibus calycibusque subglabris, corollæ galea pubescente erecta, labii lacinia media vix lateralibus majore.

Hab. in India orientali: in Gossain Than *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Rami glabri, vel superne brevissime tomentosi. Folia omnia etiam floralia longe petiolata. Petioli glabri. Limbus supra pilis brevissimis hispidus, subtus glaber vel ad venas tomento rarissimo conspersus. Verticillastri 15-20-flori. Calyces uti bracteæ glabra, nervis vix prominulis, ore truncato, submembranaceo, dentibus brevissimis emarginatis vel brevissime acuminatis. Corolla vix calyce dimidio longior, alba(?). Labium superius erectum tomentoso-pubescent, inferius breve patens. Annulus internus pilosus. Filamenta basi vix producta.

28. *P. MACROPHYLLA* (Wall.! Pl. As. Rar. 1. 62), herbacea, elata, subglabra, foliis longe petiolatis amplissimis hastato-cordatis, floralibus ovatis basi angustatis, bracteis subulatis calycibusque sub-

ciliatis, corollæ galea intus pilosissima erecta, labii lacinia media vix lateralibus majore.

Hab. in India orientali: in Gossain Than *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Herba pluripedalis, ramosa, *P. tuberosæ* affinis. Rami basi glabri, superne pilis brevibus reflexis rufescentibus subvillosi. Petioli supra pilis longis rufis subscariosis ciliati. Folia 6 poll. et ultra longa et totidem fere lata, supra pilis brevibus sparsis hispida, subtus tomento brevissimo raro, præsertim ad venas, conspersa; floralia breviter petiolata, basi rotundato-cuneata. Verticillastri in quoque ramo plurimi, remoti, 30-40-flori. Calyces ad angulos, uti bracteæ, ciliato-hispidi, cæterum virides, glabri, 6-7 lin. longi, dentibus subulato-acuminatis et margine interdentes in appendiculam brevem membranaceam producta. Corolla alba. Labium superius erectum, villosissimum, margine subundulatum, inferius patens, lobis ovato-oblongis, intermedio latiore vix emarginato. Annulus internus obliquus. Filamenta superiora in appendiculam subulatam rectam producta.

29. *P. TUBEROSA* (Linn.! Sp. 819), herbacea, elata, subglabra, foliis amplis ovatis obtusis crenatis basi profunde cordatis, floralibus oblongo-lanceolatis, bracteis subulatis calycibusque subciliatis, corollæ galea intus pilosissima suberecta, labii lacinia media lateralibus vix majore.

P. tuberosa. *Bot. Mag.* 38. t. 1555.

Phlomoides tuberosa. *Mærch. Meth.* 404.

Phlomidopsis tuberosa. *Link Handb.* 480.

Hab. in Europæ orientalis et Asiæ mediæ apricis campestribus, &c.: in Bohemia, Moravia, Austria, et Hungaria *Reichenbach*, Podolia *Besser!* Rossia australi, Sibiria, jugo Altaico, Tauria, et Caucaso, frequens *Pallas!* *Bieberstein*, *Ledebour*, *C. A. Meyer*, &c., et in montibus Taliusch et Beschtau *C. A. Meyer!* (*h. s. sp.*)

Herba 3-5-pedalis, erecta, parum ramosa. Rami purpurascens, glaberrimi, læves, obtuse tetragoni. Folia infima semipedalia et ultra, profunde crenata, utrinque viridia et glabra; floralia 2-3 poll. longa, 6-8 lin. lata, basi sæpe hastato-dilatata et subincisa. Verticillastri in quoque ramo plurimi, remoti, 30-40-flori. Calyces ad angulos uti bracteæ ciliato-hispidi, cæterum virides, glaberrimi. Dentes calycini brevissimi truncati, submembranacei, emarginati, acumine in emarginatura subulato rigido, lacinias laterales obtusissimas longe superante. Corolla purpurascens. Labium superius molliter pilosissimum, oblongum, basi angustatum, suberectum, margine crenulatum, inferius patens, superiore parum longius, lobi laterales ovato-oblongi, obtusi, divergentes, intermedius longior, subrotundo-cuneiformis, breviter emarginatus. Annulus internus horizontalis, pilosus. Filamenta superiora basi in appendicem longe recurvam producta.

Hujus varietas humilior et precocior in hortis occurrit, at cæterum nullo modo distinguenda.

30. *P. AGRARIA* (Bunge! in *Ledeb. Pl. Alt.* 3. 411), caule herbaceo simplici vel vix ramoso hispido, foliis inferioribus longe petiolatis hastato-cordatis, floralibus supremis calyce brevioribus, bracteis subulatis calycibusque ciliatis tomentoso-pubescentibus, corollæ galea intus pilosissima erecta, labii lacinia media vix lateralibus majore.

P. agraria. *Ledeb. Ic. Pl. Fl. Ross. Alt.* t. 364.

Hab. in jugo Altaico in arvis prope Semipalatinsk *Bunge!* (*h. s. sp. comm. a cl. Bunge.*)

Caules e basi perenni plures, subpedales, sæpius simplices, rarius ramis binis oppositis instructi, pilis sparsis hispidi. Folia radicalia et inferiora longe petiolata,

petiolis basi dilatatis subconnatis, limbo acuto, inciso-dentato, pubescente, supra viridi, subtus subcanescente; caulina pauca sessiliora; floralia ovato-lanceolata, sessilia, acuta, paucidentata, inferiora calyces vix excedentia, superiora breviora. Verticillastri sub-10-flori. Bracteæ rigidæ subpungentes, calyces subæquantes. Calyces virides, rigidi, plicati, non membranacei, dentibus e basi dilatata breviter subulatis rigidis. Corolla purpurascens, fere *P. tuberosæ*, tubus breviter exsertus, intus transversim piloso-annulatus. Filamentorum superiorum appendicula elongata, subulata. Styli lobus superior inferiore plus dimidio brevior.

31. *P. ALPINA* (Pall. ! in Act. Petrop. 1779. 2. 265. t. 13), caule herbaceo simplici hispido, foliis radicalibus amplissimis profunde cordatis, caulinis ovato-lanceolatis, floralibus superioribus lineari-lanceolatis elongatis integerrimis mollibus, bracteis subulatis calycibusque hirsutis, corollæ galea pilosissima erecta, labii lacinia media vix lateralibus majore.

Hab. in jugi Altaici subalpinis umbrosis tractus occidentalis *Ledebour* ! (*h. s. sp. comm. a cl. Bunge.*)

Caules e basi perenni, 1-1½-pedales, crassi, virides, obtuse tetragoni. Petioli foliorum inferiorum basi dilatati connati. Folia radicalia, 8 poll. longa, 6 poll. lata, et etiam majora, utrinque pilis sparsis hispidula, caulina pauca multo minora; floralia infima subconformia, suprema 2-3 poll. longa, angustissima, molliter villosa. Verticillastri 20-30-flori. Bracteæ molles, acutæ, plumoso-villosæ. Calycis dentes basi membranaceo-dilatati, brevissimi, setacei. Corollæ et genitalia *P. tuberosæ*, at galea erectior.

32. *P. BRACTEOSA* (Royle ! Benth. in Hook. Bot. Misc. 3. 383), herbacea, elata, erecta, subramosa, caule obverse villosa, foliis petiolatis ovatis obtusis grosse crenatis basi late cordatis rugosis supra adpresse pilosis subtus pallidis breviter tomentosis, floralibus subconformibus, bracteis oblongis exterioribus magnis foliaceis, dentibus calycinis truncatis breviter subulato-acuminatis, corollæ galea pilosissima.

Hab. in India orientali: ad montem Choor et ad Kidarkonta *Royle* ! Simlâ *Dom^a. Dalhousie*. (*h. s. sp. comm. a cl. Royle, et v. s. sp. in herb. Wight.*)

Bracteæ exteriores nunc foliis subconformes pollicares, nunc oblongæ integerrimæ, omnes virides, uti folia supra pilosa, subtus breviter tomentosa. Annulus tubi corollæ obliquus pilosus. Filamenta exappendiculata. Styli lobus superior brevissimus.

33. *P. LAMIIFOLIA* (Royle ! Benth. in Hook. Bot. Misc. 3. 383), herbacea, humilis, simplex, caule obverse villosa, foliis petiolatis late ovatis crenatis basi profunde cordatis rugosis utrinque villosis subtus pallidis, floralibus oblongo-lanceolatis, bracteis lanceolatis subulatisve ciliatis calycem æquantibus, calycis glabriusculi dentibus truncatis subulato-acuminatis, corollæ galea villosa.

P. latifolia. *Royle ! Benth. in Hook. Bot. Misc. 3. 383.*

Hab. in India orientali: in Cashmere ad montem Choor et in Mussooree *Royle* ! in montibus Kamaonensibus *Wallich* ! (*h. s. sp. e Mus. Angl. Ind. et comm. a cl. Royle.*)

Herba adscendens vel erecta, semipedalis vel vix pedalis. Folia radicalia in exemplaribus suppetentibus desunt; caulina iis *P. bracteosæ* similia, 2-3-pollicaria, sæpius tam lata quam longa, vel superiora angustiora; floralia suprema lanceolata, vix flores excedentia. Verticillastri 15-20-flori. Calyces apice submembranacei. Corollæ *P. tuberosæ*, tubo intus annulato. Filamenta omnia exappendiculata. Styli lobus superior brevissimus.

Radix in hac et binis subsequentibus verosimiliter tuberosa: folia infima minima videntur.

34. *P. SIMPLEX* (Royle! Benth. in Hook. Bot. Misc. 3. 382), herbacea, humilis, erecta, subsimplex, caule obverse piloso, foliis petiolatis lato-ovatis obtusis crenatis basi cordatis rugosis utrinque viridibus villosis, floralibus subsessilibus oblongis utrinque angustatis, bracteis linearibus ciliatis calycem æquantibus, calycis membranacei subcolorati apice ciliati dentibus truncatis longe subulato-acuminatis, corollæ galea pilosissima.

Hab. in India orientali: in montibus Kanaour et ad Pere Punjale regni Cashmeriani *Royle!* (*h. s. sp. comm. a cl. Royle.*)

A *P. lamiifolia* differt foliis angustioribus villosioribus, corollis majoribus, tubo exserto.

35. *P. CORDATA* (Royle! Benth. in Hook. Bot. Misc. 3. 382), herbacea, humilis, erecta, subsimplex, caule obverse piloso, foliis longe petiolatis ovato-subrotundis obtusis crenatis basi cordatis rugosis utrinque dense sericeo-villosis, floralibus oblongo-lanceolatis, bracteis lineari-subulatis calyce subbrevioribus villosis, calycis villosuli dentibus subrotundis breviter subulato-acuminatis, corollæ galea pilosissima.

Hab. in India orientali: in montibus Kanaour *Royle!* (*h. s. sp. comm. a cl. Royle.*)

A binis præcedentibus differt præcipue foliis utrinque pilis numerosis mollibus sericeis dense vestitis. An cum *P. simplici* *P. lamiifoliæ* mera varietas?

36. *P. RUGOSA* (Benth. in Wall. Pl. As. Rar. 1. 63), suffruticosa, ramis erectis simplicibus subcarnosis tenuiter tomentosis, foliis longe petiolatis ovato-oblongis acutis serratis basi angustatis rotundatisve, verticillastris petiolo multoties brevioribus, bracteis subulatis calycibusque glabris, dentibus calycinis lanceolato-subulatis, corollis subglabris.

Hab. in India orientali: in montibus Silhet *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitu a *Phlomidibus* recedit, sed characteribus *P. brevifloræ* affinis. Rami e basi lignoso complures, erecti, simplices, subcarnosi, obtuse tetragoni, sulcati. Folia etiam floralia longe petiolata, herbacea, viridia, subcarnosa (?), siccitate subtranslucentia, venosa, glabriuscula, vel pilis rarissimis conspersa, 4-6 pollices longa. Verticillastri 15-20-flori. Bracteæ calyce breviores. Calyces basi valde attenuati, margine parum membranaceo dilatato subnervi. Corollæ flavescentes (ex Wall.) similes corollis *P. brevifloræ*, sed vix in speciminibus suppetentibus perfectæ. Stamina e tubo breviter exserta. Filamenta omnia basi nuda videntur.

Species mihi ignotæ.

P. CONDENSATA Mart. ex Steud. Nom. Bot.

P. SCARIOSA Presl. ex Steud. l. c.

Species e genere excludendæ.

- P. ALBA* Forsk. = *Ballota* Forskahlii.
P. ASPERA Willd. = *Leucas aspera*.
P. BIFLORA Royle. = *Leucas procumbens*.
P. BIFLORA Vahl. = *Leucas biflora*.
P. CARIBÆA Jacq. = *Leucas martinicensis*.
P. CEPHALOTES Roth. = *Leucas Cephalotes*.
P. CHINENSIS Blume. = *Leucas javanica*.
P. CHINENSIS Retz. = *Leucas chinensis*.
P. DECEMDENTATA Willd. = *Leucas decemdentata*.
P. DIMIDIATA Roth. = *Leucas dimidiata*.
P. ESCULENTA Roxb. = *Leucas aspera*.
P. GLABRATA Vahl. = *Leucas glabrata*.
P. HIRTA Roth. = *Leucas hirta*.
P. INDICA Linn. = *Leucas indica*.
P. LACINIATA Linn. = *Eremostachys laciniata*.
P. LEONITIS Linn. = *Leonotis ovata*.
P. LEONURUS Linn. = *Leonotis Leonurus*.
P. LINIFOLIA Roth. = *Leucas linifolia*.
P. MARTINICENSIS Swartz. = *Leucas martinicensis*.
P. MICRANTHA Burch. = *Stachys Burchellii*.
P. MOLLIS Schum. = *Leucas martinicensis*.
P. MOLUCCANA Royle. = *Leucas flaccida*.
P. MOLUCCOIDES Vahl. = *Otostegia scariosa*.
P. MONTANA Roth. = *Leucas montana*.
P. NEPETÆFOLIA Linn. = *Leonotis nepetæfolia*.
P. NUTANS Roth. = *Leucas nutans*.
P. PALLIDA Schum. = *Leonotis pallida*.
P. PARVIFOLIA Burch. = *Stachys integrifolia*.
P. PILOSA Roxb. = *Leucas pilosa*.
P. PLUKENETII Roth. = *Leucas aspera*.
P. URTICÆFOLIA Vahl. = *Leucas urticæfolia*.
P. ZEYLANICA Linn. = *Leucas Zeylanica*.
P. ZEYLANICA Roxb. = *Leucas linifolia*.

LXXXIX. NOTOCHÆTE.

Notochæte. Benth. in Wall. Pl. As. Rar. 1. 63.

Calyx tubulosus, æqualis, apice membranaceus, breviter 5-dentatus, nervis 5, sub apice calycis in aristas subulatas rigidas apice uncinato-revolutas productis. Corolla tubo incluso exannulato, labio superiore galeato pilosissimo, inferiore patente subæqualiter trifido. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta basi nuda. Antheræ per paria approximatae, biloculares, loculis demum divaricatis. Styli lobi breves æquales. Achenia sicca, apice truncata nuda.

A single East Indian species allied to the *Phlomides* of the section *Phlomidopsis*, and in particular to *P. breviflora*, but differing in the structure of the calyx, and that of the anthers. It has also considerable affinity to *Lamium* and *Leonurus*.

1. *N. HAMOSA* (Benth. in Wall. l. c.)Hab. in Napalia *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caulis herbaceus, erectus, bipedalis et ultra, ramosus, obsolete tetragonus, brevissime pubescens. Folia longe petiolata, 3-5-pollicaria, ovata, acuminata, serrato-crenata, basi oblique rotundato-cuneata, nervosa, utrinque viridia, glabriuscula, juniora subtus tomentosa. Verticillastri axillares, remoti, globosi, dense multiflori, lappacei, petiolis multo breviores. Bracteæ subulatæ, rigidæ, uti dentes calycini apice uncinato-revolutæ, corollas superantes. Corollæ parvæ, purpurascens?

XC. EREMOSTACHYS.

Eremostachys. *Bunge in Ledeb. Fl. Alt. 2. 414.*

Calyx ample tubulosus, subcampanulatus vel infundibuliformis, dentibus 5, spinosis vel, limbo maximo membranaceo, mucroniformibus. Corolla tubo incluso, intus annulato vel nudo, limbo hiant bilabiato, labio superiore elongato galeato subcompresso basi attenuato, extus pubescente, intus margineque barbato, inferiore patente trifido, lobis omnibus rotundatis, medio latiore. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta superiora basi in appendiculam obtusam vel fimbriatam incrassata. Antheræ paria approximata, biloculares, loculis divaricatis. Stylus apice bifidus, lobis subulatis æqualibus vel superiore vix dimidio brevior. Achenia sicca apice densissime pilosa.—Herbæ parum ramosæ. Folia radicalia caulinis ampliora, integra vel dissecta. Verticillastri multiflori sæpe ad apices caulis vel ramorum approximati. Bracteæ appressæ. Corollæ sæpius ochroleucæ.

An Asiatic genus, found in the temperate mountainous regions in the centre of that continent. The distinction from *Phlomis*, especially in regard to the first three species, is but very slight.

1. *E. LACINIATA* (Bunge! in Ledeb. Fl. Alt. 1. 416), foliis pinnatisectis segmentis oblongo-lanceolatis linearibusve inciso-pinnatifidis, calyce ample tubuloso campanulato apice vix dilatato.

Phlomis laciniata. Linn. ! Spec. 819. Sw. Brit. Fl. Gard. 1. t. 24.

Hab. in Oriente *Labillardière!* in Caucaso orientali et Iberia *Bieberstein*, in collibus siccis prope Baku in monte Beschbarmak, et in montibus Talüsche prope pagum Swant *C. A. Meyer!* (*h. s. sp. comm. a cl. De Candolle, Prescott, Bunge, &c.*)

Caulis herbaceus, erectus, subsimplex, 1-1½-pedalis. Folia radicalia, semipedalia, ad petiolum dissecta, segmentis numerosis lobisque obtusis. Petioli et nervi uti caules lana longa laxa vestiti; limbus demum glaber, lævis. Folia caulina pauca, minora, minus dissecta; floralia vix calyces excedentia. Verticillastri 10-20-flori, distantes vel in spicam terminalem approximati, juniores lana laxa alba omnino obtecti, fructiferi laxè villosi-lanati. Bracteæ lanceolatae, acutæ, adpressæ, interdum subpungentes. Calyces circiter 8 lin. longi, villosi-lanati, subcoriacei, intus læves, dentibus e basi brevissima truncata breviter spinoso-mucronatis. Corolla purpurascens; tubus calycem æquans, supra medium piloso-annulatus; galea basi erecta, apice incurva, late oblonga, compressa, brevissime emar-

ginata, extus pubescens, intus pilosissima; labium patens, 8 lin. longum, 9-10 latum; lobis omnibus lato-rotundatis, medio vix lateralibus duplo latiore. Filamenta superiora basi in appendiculam obtusam subintegram incrassata. Styli lobus superior inferiore dimidio brevior. Achenia apice densissime pilosa.

2. *E. SUPERBA* (Royle! Benth. in Hook. Bot. Misc. 3. 381), foliis radicalibus maximis pinnatisectis segmentis 2-3-jugis, inferioribus petiolatis externo longissimo omnibus latis grosse crenato-lobatis utrinque viridibus, floralibus ovatis acutis subintegerrimis calyce ample tubuloso apice vix dilatato.

Hab. in India orientali: ad claustrum Kheera Pass dictum, Deyra Dhoon euntem *Royle!* (*h. s. sp. comm. a cl. Royle.*)

Folia inferiora vel radicalia sesquipedalia, lobo ultimo 10 poll. longo, petiolo communi petiolulisque villosis, limbo viridi glabriusculo. Caulis erectus, elatus, versus apicem lanatus. Racemus spiciformis, densus, semipedalis et ultra, sed tenuior quam in *E. laciniata*. Verticillastri 6-flori. Folia floralia inferiora ovata, superiora obovata, omnia acutiuscula. Bracteæ lanceolatae, acutæ, calyce breviores. Calyx amplus, tubuloso-campanulatus, dentibus rotundato-truncatis, æqualibus, breviter spinoso-acuminatis, post anthesin vix dilatatis, uti bracteæ lana alba laxa vestitus. Corolla fere *E. laciniatæ*; tubus vix exsertus, intus exannulatus; galea oblonga basi angustata parum incurva, compressa, extus pubescens intus dense pilosa; labium inferius patens; lobis lateralibus lato-ovatis integerrimis reflexis, medio lato crenulato utrinque lateraliter reflexo. Filamenta superiora basi in appendiculam obtusam vix fimbriatam incrassata. Antheræ biloculares. Styli lobi subæquales.

3. *E. PHLOMOIDES* (Bunge! in Ledeb. Fl. Alt. 1. 414), foliis ovatis dentatis, calyce tubuloso apice vix dilatato, dentibus spinosis patentibus.

E. phlomoides. *Ledeb. Ic. Pl. Fl. Ross. Alt. t. 122.*

Hab. in Sibiria Altaica rarissime in locis subsalsis deserti montibus Arkaul et Dolenkara adjacentis *Bunge!* (*h. s. sp. comm. a cl. Bunge.*)

Caulis fere pedalis, ramosus, uti calyces et bracteæ pilis longis mollibus albis hirtus. Folia radicalia petiolata, ovata, obtusa, basi rotundata, rugosa, crenata, laxè sublanata, caulina et floralia sessilia, acuta, subspinosa-dentata, basi angustata, suprema sterilia. Verticillastri sexflori, distincti. Bracteæ subulatae, spinosæ. Calyces magnitudine et forma fere *E. laciniatæ*, sed dentibus longioribus magis spinosis et patentibus. Corolla ochroleuca, dimidio minor quam in *E. laciniata*; tubus intus supra medium annulatus. Filamentorum appendiculæ breves fimbriatæ. Stylus apice subæqualiter bifidus. Achenia apice densissime lanata.

4. *E. TUBEROSA* (Bunge! in Ledeb. Fl. Alt. 2. 415), foliis ovatis dentatis, calycis glabri basi tubulosi limbo membranaceo subpatente, tubo brevior breviter 5-spinoso.

Moluccella tuberosa. *Pall. ! Itin. 3. App. n. 101. t. T.*

Hab. in Sibiria ad lacum Inderiensem *Pallas! Tauscher! &c.* (*h. s. sp. comm. a cl. Bunge.*)

Foliorum petioli dense lanati, lamina lana laxa conspersa, cæterum tota planta glaberrima. Radix tuberosa. Caulis semipedalis vel vix pedalis, ramosus. Folia radicalia petiolata obtusa, caulina subsessilia, uti floralia basi cuneata, apice gradatim acutiora, suprema angusta, subspinosa, dentibus paucis subspinosis. Bracteæ subnullæ. Verticillastri sexflori, parum distantes. Calyces fere pollicares, sessiles, apice præsertim membranacei, limbo subplicato. Corollæ calyce subduplo longiores, ochroleucæ? tubus tenuis, supra medium intus annulatus; galea elongata,

angusta, extus fere glabra, intus dense barbata. Filamentorum superiorum appendiculæ breviter fimbriatæ. Genitalia e galea subexserta. Achenia pilis densissimis niveis apice coronata.

5. *E. MOLUCCELLOIDES* (Bunge! in Ledeb. Fl. Alt. 2. 416), foliis ovatis dentatis, calycis basi tubulosi pubescentis limbo maximo membranaceo-dilatato brevissime 5-mucronato.

E. moluccelloides. Ledeb. Ic. Pl. Fl. Ross. Alt. t. 437.

Phlomis lanigera. Sievers in Pall. Beytr. 7. sec. Bunge.

Hab. in deserti Soongoro-Kirghisici arenosis siccis Bunge! (*h. s. sp. comm. a cl. Bunge.*)

Radix tuberosa, crassa. Caulis 1-2-pedalis, tetragonus, erectus, simplex vel ramos 2-4 emittens, basi et ad genicula densissime albo-lanatus, cæterum pilis albidis sparsis patentibus hispidus. Folia radicalia et infima petiolata, obtusa, rugosa, supra hispidula, subtus molliter villosa-lanata, suprema et floralia acuta acute dentata, basi cuneata. Verticillastri 6-flori. Bracteæ parvæ, deciduæ. Calyx fructifer, magnitudine *Moluccellæ*, lævis, sed tubus rectus pubescens et limbus æqualiter nec oblique dilatatus. Corolla ochroleuca, sesquipollicaris, omnino *E. tuberosæ*. Genitalia et achenia *E. tuberosæ*.

XCI. ERIOPHYTON.

Benth. in Wall. Pl. As. Rar. 1. 63.

Calyx membranaceus, ample campanulatus, æqualis, 5-dentatus. Corolla tubo incluso, limbo bilabiato, labio superiore maximo galeato compresso incumbente, inferiore parvo trifido, lobis rotundatis. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta superiora basi incrassato-appendiculata. Antheræ per paria approximate, biloculares, loculis divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca nuda.

A single East Indian species allied to *Eremostachys*, but sufficiently distinct in the form of the calyx and corolla, as well as in habit, which is nearly that of some *Phlomides* and *Lama*.

1. *WALLICHIANUM* (Benth. in Wall. l. c.)

Hab. in Gossain Than Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis e radice tuberosa ortus? herbaceus, erectus, simplex, in parte superiore uti folia, calyces, et corollarum galeæ, lana longissima laxa albida obtectus. Folia infima parva, superiora et floralia rhomboidea vel orbicularia, sesquipollicem lata, basi subcuneata, sessilia, crenata, mollissima. Bracteæ nullæ. Verticillastri sex-flori. Calyces semipollicares, sessiles, reticulato-venosæ, dentibus e basi lato-ovata subulatis, subspinosi. Corolla flava; galea semi-orbicularis, semipollicem longa, intus glabra; labium dimidio brevius.

XCII. MOLUCCELLA.

Moluccellæ sp. *Linn. et Auct.*Molucca. *Tourn. Mæench.*Chasmonia. *Presl.*

Calyx basi oblique campanulatus, striatus, limbo amplo dilatato reticulato-venoso 5-10-mucronato vel spinoso. Corolla tubo incluso, intus oblique annulato, limbo bilabiato, labio superiore erecto integro vel emarginato-bifido, inferioris lobis lateralibus erectiusculis, medio patente lato obcordato. Stamina 4, didynama, inferioribus longioribus, adscendentia. Filamenta basi nuda. Antheræ in apice filamenti lateraliter pedicellatæ, biloculares, loculis subdistinctis divaricatis. Stylus apice subæqualiter bifidus, stigmatibus subterminalibus. Achenia sicca, acute triquetra, apice truncata.—Herbæ annuæ, glaberrimæ. Folia petiolata, profunde crenata vel incisa; floralia conformia. Verticillastri pluriflori axillares. Bracteæ subulatæ spinosæ.

Under the name of *Moluccella* have been united a number of heterogeneous plants, supposed to be connected together by the vague character of *calyx corolla amplior*, but in fact bearing no other resemblance to each other than the subulate spinescent bracteæ. Presl, I believe, in his *Flora Sicula*, first separated the *M. spinosa* under the name of *Chasmonia*; and Bunge, in Ledebour's *Flora Altaica*, and since then in a monograph, which I understand he is preparing for the press, has broken up the Russian species into groups all distinct from *M. lævis*, but some of which appear to me to belong to other old genera. According to my own views, considering the greater or less development of the limb of the calyx, provided the nervation remain the same, to be of little importance, I have in the whole of the order relied much more upon other characters; and, in the present instance, should retain in *Moluccella* both the *M. lævis* and *spinosa*. The *M. frutescens* Linn. is a *Ballota*. The *M. marrubiastrum* of Willdenow, forming the type of Bunge's *Lagopsis*, cannot, in my opinion, be removed from *Marrubium*. *M. tuberosa*, with the other species of Bunge's *Eremostachys*, are as nearly connected with *Phlomis*; and the same author's *Lagochilus*, of which the type is *M. diacanthophylla*, is too closely connected with *Lamium* not to be referred to that genus as a fifth section, to which genus, indeed, the true *Moluccellæ* are, in many respects, very closely allied, especially in the inflorescence, the truncate achenia, oblique calyx, and, in some respects, the general form of the corolla.

Both the remaining species of *Moluccella* are from the East Mediterranean region, and not from the *Moluccas*, from which supposed station the generic name is said to be derived.

1. *M. LÆVIS* (Linn.! Spec. 821), calycis limbo maximo membranaceo subpentagono brevissime 5-mucronato.

M. lævis. *Sibth. et Sm. ! Fl. Gr. 6. 53. t. 566. Bot. Mag. 43. 1852.*

Molucca lævis. Mæench. Meth. 404.

August 1834.

4 o

Hab. in Syria *Linnæus*, Palæstina *Clarke*, inter Smyrnam et Bursam *Sibthorp*! (*h. s. c. et v. s. sp.*)

Planta in omnibus partibus glaberrima, lævis. Caules herbacei, adscendentes vel erecti, parum ramosi, fere a basi floriferi. Folia longe petiolata, limbo 1-1½-pollicari, subrotundo, grosse crenato, basi cuneato vel rotundato, integerrimo, floralium petioli calyces æquantes vel excedentes. Verticillastri plerumque sexflori, distantes. Bracteæ 4-5 lin. longæ, læves, basi subconnatæ. Calyces sessiles, latere superiore 15 lin., inferiore 12 lin. longi, fere 2 poll. diametro, nervis tubi intus nec extus prominentibus, limbo utrinque reticulato-venoso. Corolla limbo calycis brevior, albida, annulo intus membranaceo nec piloso, fere completo. Labium superius integrum, inferioris lobi laterales ovato-oblongi, medius bifidus, laciniis rotundatis.

2. *M. SPINOSA* (Linn.! Spec. 821), calycis limbo brevi coriaceo subbilabiato 8-spinoso.

M. spinosa. *Sibth. et Sm.!* *Fl. Gr.* 6. 54. t. 567.

Chasmonia incisa. *Presl. Fl. Sic.* xxxvii. *Bot. Reg.* 15. t. 1244.

M. armata. *Sieb.!* *Pl. Exs.*

Molucca spinosa. *Mœnch. Meth.* 404.

Hab. in regione Mediterranea : in Sicilia *Gussone*, regno Neapolitano *Tenore*, Palæstina *Clarke*, in monte Parnasso *Sibthorp*! (*h. s. c. et v. s. sp.*)

Habitus *M. lævis*, at rigidior. Folia minora, dentibus mucronulatis. Inflorescentia et bracteæ *M. lævis*. Calyx rigidus, coriaceus, pollicaris, incurvus, limbo valde obliquo, dente vel labio superiore erecto, lanceolato, apice in spinam attenuato, labio inferiore quadrangulato, angulis spina longa terminatis, sinu quoque spina minore aucto. Corolla calycem parum excedens, annulo interno piloso, valde obliquo, labio superiore extus villosulo apice latissime emarginato-bifido; labio inferiore brevior, cæterum labio *M. lævis* conforme.

Species e genere excludendæ.

M. DIACANTHOPHYLLA *Pall.* = *Lagochilus diacanthophyllus*.

M. FRUTESCENS *Linn.* = *Ballota spinosa*.

M. FRUTESCENS *Sibth.* = *Ballota integrifolia*.

M. GRANDIFLORA *Steph.* = *Lagochilus diacanthophyllus*.

M. INTEGRIFOLIA *Br.* = *Otostegia integrifolia*.

M. MARRUBIASTRUM *Steph.* = *Marrubium lanatum*.

M. PERSICA *Linn.* = *Ballota persica*.

M. REPANDA *Br.* = *Otostegia repanda*.

M. SCARIOSA *Br.* = *Otostegia scariosa*.

M. TUBEROSA *Linn.* = *Eremostachys tuberosa*.

XCIH. ? LAGOCHILUS.

Moluccellæ sp. *Pall.*

Lagochilus. *Bunge Monogr. Gen. Molucc. ined.*

Calyx tubuloso-campanulatus, sub-5-nervius, ore æquali vel obliquo, dentibus 5 subæqualibus vel superioribus longioribus, apice subspinosus. Corolla tubo subexserto, intus annulato, limbo bilabiato, labium supe-

rius oblongum apice bifidum, inferius suberectum, lobis lateralibus brevibus erectis acutis, infimo patente late bifido. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta basi nuda. Antheræ per paria approximatae, biloculares, loculis parallelis vel divergentibus, valvulis margine ciliato-hirsutis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, triquetra, angulis acutis, apice truncata.—Herbæ? glaberrimæ, rigidæ. Folia inciso-lobata, lobis subspinescentibus. Verticillastri axillares, pauciflori. Bracteæ subulatae, subspinosæ.

A Siberian genus closely allied to *Leonurus* and *Lamium*, near which genera it might have been better placed. It is also very near *Moluccella*, and connects this genus with *Lamium*, all three having the same truncate achenia, and very great similarity in the calyx, corolla, and stamina.

1. *L. DIACANTHOPHYLLUS*, foliis tripartitis incisis, calycibus subrectis, dentibus oblongis mucronulatis tubo longioribus.

Moluccella diacanthophylla. *Pall. ! Nov. Act. Petron.* 10. 380. t. 11.

Moluccella grandiflora. *Steph. in Willd. Spec.* 3. 131. ?

Hab. in deserto Bucharico *Pallas ! (v. s. sp. in herb. Lambert.)*

Caules e basi perenni, plures, erecti, semipedales, tetragoni, glabri, læves, albidii. Folia inferiora lobis latis brevibus obtusis muticis, superiora angustis mucrone brevi spinescentibus, cæterum foliis *L. Bungei* similia. Spinæ in axillis sterilibus sæpe utrinque 2, breves patentes. Verticillastri 2?-flori. Folia floralia trifida, lobis integerrimis vel medio tridentato. Bracteæ plures spinosæ, patentes, basi interdum lanceolatae. Calyces post anthesin pollicares. Corolla extus villosa, in exemplari suppetente e vermibus partim destructo nondum aperta vel jam decidua; sec. *Pallas*, “carneo-rubescens, calyce multo longior; galea recta villosa, oblongo-linearis, bifida, laciniis emarginato-incisis, labium 3-partitum compressum, lacinia media bilobata, lateralibus lanceolatis parvis.” In icone pessima corolla deesse videtur, vel cum calyce confusa est.

2. *L. BUNGEI*, foliis petiolatis 3-5-partitis incisis, calycibus elongatis incurvis, dentibus lanceolato-spinosis, tubo dimidio brevioribus.

L. diacanthophyllus. *Bunge ! Mon. Gen. Molucc. ined. excl. Syn. Pall.*

Hab. in Sibiria : in rupestribus Soongoriæ ad Irtim *Bunge ! (h. s. sp. comm. a cl. Bunge.)*

Caulis basi lignosus, adscendens, pedalis, obtuse tetragonus, glaber, lævis. Folia pollicaria, basi cuneata, lobis latis apice breviter spinescenti-mucronatis vel muticis, rigidia, utrinque glabra, lævia, viridia, minutissime punctata; floralia subconformia, sessiliora, minus incisa. Verticillastri axillares, remoti. Bracteæ subulatae, rigidæ, subspinescentes, virides, glabræ, calycibus breviores. Calyces semipollicares, forma fere *Lamii longiflori*, at rigidi, glabri, virides vel basi albidii, ore obliquo, dentibus lanceolatis, superioribus majoribus. Corolla fere sesquipollicaris, pallide rosea, extus glabra; tubus tenuis, intus breviter oblique annulatus, fauce non inflata; galea elongata, subplana, apice bifida basi angustata; labium inferius fere *Leonuri lanati*, lobis lateralibus erectis acutis, et fere ut in *Lamio* in dentes mutatis, medio deflexo profunde bifido. Antherarum loculi bivalves, valvulis pilis albis densis fimbriatis. Achenia oblonga, acute triquetra, truncata.

Species a *L. diacanthophyllo* calyce distinctissima.

3. *L. ILICIFOLIUS* (*Bunge ! Mon. Gen. Molucc. ined.*), foliis sessilibus cuneiformibus apice inciso-3-5-dentatis, calycibus brevibus subrectis, dentibus oblongis brevissime mucronulatis.

Hab. in Mongholiæ australis lapidosis subsalsis *Bunge* ! (*h. s. sp. comm. a cl. Bunge.*)

Herba vel suffrutex pumila, rigida. Caules sub axillis villosuli, cæterum glabri. Folia crebra, semipollicaria, rigida, coriacea, glabra, lævia, viridia, dentibus ovatis brevissime spinescenti-mucronulatis; floralia conformia. Verticillastri axillares, pauciflori. Calyx vix 3 lin. longus, glaber, lævis, dentibus subæqualibus. Corolla 7-8-linearis, tubus inclusus, intus oblique annulatus; galea ovata, bifida, extus pilosa, inferioris lobi laterales breves, oblongi, erecti, medio profunde bifido.

XCIV.? HOLMSKIOLDIA.

Holmskioldia. *Retz. Obs.* 6. 31.

Hastingsia. *Sm. Exot. Bot.* 2. t. 80.

Platunium. *Juss. Ann. Mus. Par.* 7. 76.

Calyx tubo brevissimo, limbo maximo subrotato-campanulato membranaceo-venoso subintegerrimo. Corolla tubo elongato incurvo, intus nudo, fauce subdilatata, limbo subbilabiato, labio superiore bifido, laciniis erecto-patentibus, labii inferioris laciniis lateralibus parvis reflexis, medio ovato patente. Stamina 4, adscendentia, didynama, inferioribus longioribus, e corolla exserta. Filamenta superiora basi parum dilatata. Antheræ biloculares, loculis parallelis. Stylus subinteger vel lobo superiore brevissimo, apice minute stigmatifer. Ovarium bipartitum, lobis profunde bifidis vix bipartitis. Achenia rugosa, subcarnosa?

This East Indian shrub has much more the habit of some *Verbenaceæ* than of any *Labiataæ*. In the calyx it is allied to *Moluccella*, in the corolla to *Melissineæ*; and it also bears affinity to *Phlomis*, to *Colquhounia*, to the *Prasieæ*, and to *Ajugoideæ*; but not having any but very young fruit, I have not been able to determine whether it should not, in fact, be referred to one of the last-mentioned tribes.

1. *H. SANGUINEA* (Retz l. c.)

Hastingsia coccinea. *Sm. l. c.*

Platunium rubrum. *Juss. l. c.*

Hab. in India orientali: in Hindustania, Silhet, &c. *Wallich* ! (*h. s. sp. e Mus. Angl. Ind.*)

Frutex ramis divaricatis, tetragonis, glabris, sæpe tuberculatis. Folia petiolata, ovata, acuminata, vix dentata, basi subtruncata, 2-4-pollicaria, glabra, venosa, utrinque viridia. Racemuli axillares petiolo vix longiores, e verticillastris paucis 2-4-floris constantes. Pedicelli 3-4 lin. longi, filiformes, basi nudi vel instructi bractea (vel folio florali) nunc parva rotundata, nunc fere pollicari, foliis caulinis subconformi. Calyx florifer 8-9 lin. post anthesin plus pollice diametro, reticulato-venosus, sanguineo-coloratus, venis 5 primariis in margine terminatis, vel in mucronem brevissimum abeuntibus. Corolla 10-11 lin. longa, rubra? fere glabra; labii superioris laciniæ vix lineam longæ, inferioris lacinia media 2-lin. Genitalia exserta. Ovarii lobi tuberculis minutis rugosuli.

XCV. ACHYROSPERMUM.

Achyropermum. *Blume Bijdr.* 840.

“Calyx corolla amplior, subbilabiatus, labio superiore erecto trifido, inferiore parum brevior patente bifido. Corolla calyce longior, tubulosa, limbo bilabiato, labio superiore abbreviato erecto emarginato, inferiore semitrifido, lobo intermedio majore concavo. Stamina 4, subæqualia, adscendentia. Antheræ uniloculares. Achenia 4, calyce persistente inclusa, superne arillo paleaceo coronata.—Herbæ foliis oppositis dentatis molliter pubescentibus, floribus verticillato-spicatis terminalibus.”—*Blume l. c.*

An obscure genus from the East Indian islands, requiring further investigation before its place in the order can be determined.

1. *A. DENSIFLORUM* (Blume Bijdr. 841).

Hab. in Java ad margines rivulorum circa Linga Jattie provinciæ Cheribon *Blume*.

“*A. spica cylindracea densiflora, bracteis multifloris, foliis obovato-oblongis acutis basi integerrimis.*”—*Blume l. c.*

On describing Von Chamisso's *Labiata* (Linnæa, vol. 6) I thought I recognised this plant; but as Blume's descriptions are so short, I have some doubts whether I was right. The following is the description I made at the time:—

Herba 6-8 pollicaris, erecta, caule pubescente simplici. Folia petiolata, ovata, acuminata, serrata, basi cuneata vel angustata, utrinque puberula. Verticillastri sub-6-flori, in spicam densam ovatam sesquipollicarem approximati. Folia floralia bractæformia, sessilia, lato-ovata, ciliata, acuta, calyce subbreviora. Calyx ovatus, membranaceus, pubescens, subbilabiatus; labium superius 3-dentatum, dentibus ovatis, medio productiore, inferiore bidentato, dentibus omnibus subæqualibus, fructifer subinflatus, dentibus subpatulis, fauce intus nuda. Corolla calyce vix longior. Stamina 4, adscendentia. Filamenta nuda. Antheræ loculis confluentibus. Stylus brevissime bifidus. Achenia dorso et apice paleis membranaceis coronata. Hab. in Manilla *Chamisso*.

2. *A. PHLOMOIDES* (Blume Bijdr. 841).

Hab. in Javæ sylvis altioribus humidis montis Burangrang *Blume*.

“*A. spica laxa, bracteis unifloris basi intus biglandulosis, foliis obovato-obtusis basi integerrimis.*”—*Blume l. c.*

3. ? *A. FRUTICOSUM*.

Hab. in Madagascaria *Lyall ! Bojer !* (v. s. sp. in herb. *Hooker et Mus. Par.*)

Caulis fruticosus, ramis tenuiter pubescentibus. Folia petiolata, ovata, obtusa, late crenata, basi rotundata, petiolo cuneato alato utrinque pubescentia, subtus minutissime glandulosa. Verticillastri 6-flori, in spicam laxam terminalem approximati. Flores fere *Colquhouniæ*. Folia floralia membranacea, lato-ovata, ciliata, calyce vix longiora. Calyces membranacei, tubulosi, pubescentes, subincurvi, ore subobliquo subæqualiter 5-dentato, dentibus ovatis acutis, fauce intus nuda. Corolla *Holmskioldiæ*, calyce duplo longior, tubo intus nudo incurvo, fauce subinflata, labiis abbreviatis patentibus, supremum lobis 2 latis rotundatis brevibus, inferius 3-lobum, lobis lateralibus brevibus rotundatis, inferiore longiore lato rotundato 2-lobo, lobis subreflexis. Stamina adscendentia, breviter exserta, filamenta

usque ad faucem adnata, superiora basi in appendiculam brevem pilosam producta. Antheræ biloculares, loculis divaricatis demum subconfluentibus. Styli lobus superior brevissimus. Ovaria apice squamis pubescentibus densissime obsessa. Achenia non vidi.

I have placed this plant in *Achyrospermum* on account of the scales of the ovarium, which I conceive to be Blume's "arillus paleaceus." It is evidently very nearly allied both to *Colquhounia* and *Holmskioldia*.

XCVI.? COLQUHOUNIA.

Colquhounia. Wall. in *Trans. Soc. Linn. Lond.* 13. 608.

Calyx tubuloso-campanulatus, 10-nervius, subincurvus, subæqualiter 5-dentatus, fauce intus nuda. Corolla tubo exserto incurvo, intus nudo, fauce dilatata, limbo bilabiato, labio superiore erecto integro subplano, inferiore subpatente, lobis 3 brevibus ovatis integris. Stamina 4, adscendentia, didynama, inferioribus longioribus. Filamenta basi nuda. Antheræ approximatæ, biloculares, loculis demum divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia oblonga, sicca, lævia, apice membranaceo-producta.—Frutices volubiles scandentes, sæpe tomentosi nec pilosi. Verticillastri laxi, axillares, vel in spicam terminalem approximati. Bracteæ minutæ. Corollæ coccineæ.

An East Indian genus, probably very nearly allied to *Achyrospermum*. Amongst better-known genera it comes near in characters to *Stachys*, and in habit to *Gomphostemum*.

1. *C. COCCINEA* (Wall.! l. c. et Tent. Fl. Nap. 1. 13. t. 6), foliis glabriusculis asperulis junioribus calycibusque tomento tenui canescentibus, dentibus calycinis ovatis obtusis, corollæ labio superiore ovato.

β *parviflora*, foliis junioribus calycibusque vix tomentosis.

Hab. in Napalia *Wallich!* β in Gossain Than *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Frutex amplus, super alios arboresque minores volubilis. Rami longissimi, tomento parco hinc inde conspersi, dilute ferruginei, juniores tomento densiore vestiti. Folia petiolata, ovata, acuminata, 3-5-pollicaria, crenulata, basi acuta vel rotundata, supra atroviridia, rugoso-scabra, juniora subtus incano-tomentosa, adulta subnuda; floralia inferiora conformia, suprema minuta. Verticillastri pauciflori, nunc in spicas terminales, basi foliosas, approximati, nunc in racemulis brevibus axillaribus dispositi. Bracteæ minutæ, lineares. Calyces semipollicares, basi angustati, tomento tenui conspersi. Corolla coccinea, calyce duplo longior.

2. *C. VESTITA* (Wall.! Tent. Fl. Nap. 1. 14. Pl. As. Rar. 3. 43. t. 267), foliis subtus caule calycibusque albo-tomentosis, dentibus calycinis ovatis obtusis corollæ labio superiore ovato.

Hab. in Kamaon *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Characteribus supra datis et floribus parum minoribus distinguitur a *C. coccinea*, cui habitu similis.

3. *C. ELEGANS* (Wall.! Pl. As. Rar. 1. 65. et 3. 43. t. 268), caule, foliis, calycibusque velutino-pubescentibus, dentibus calycinis lato-lanceolatis acutiusculis, corollæ labio superiore oblongo.

Hab. ad Taong Dong montem Avæ *Wallich*! (*h. s. sp. e Mus. Angl. Ind.*)

Præter characteres supra datos, differt a *C. coccinea* et *C. vestita* calycibus dimidio minoribus, corollis longius exsertis, fauce ampliore, et colore florum aurantiaco punctis sanguineis notato nec coccineo.

TRIBUS X. PRASIEÆ.

CALYX subæqualis. **Corolla** bilabiata. **Stamina** 4, adscendentia, didynama, inferioribus longioribus. **Achenia** carnosâ, subbaccata.

XCVII. GOMPHOSTEMMA.

Gomphostemma. *Wall. Benth. in Wall. Pl. As. Rar.* 2. 12.

Calyx ovato-campanulatus vel tubulosus, subæqualis, 5-dentatus, intus fauce nuda. **Corolla** tubo recto sæpius exserto intus exannulato supra medium inflato, bilabiata, labiis subæqualibus, superiore erecto integro fornicato, inferiore patente trifido. **Stamina** 4, sub labio superiore adscendentia, inferioribus longioribus. **Antheræ** paria approximatae, biloculares, loculis parallelis transversalibus. **Stylus** apice subæqualiter bifidus, lobis subulatis. **Stigmata** minuta. **Achenia** carnosâ.—**Herbæ** perennes, caulibus sæpius erectis simplicibus vel basi procumbentibus radicanibus. **Folia** sæpius ampla, crassa, villosa vel tomentosa. **Flores** majusculi. **Verticillastri** nunc spicati, nunc axillares, remoti.

The species are all South Asiatic; from East India, the Burmese empire, and the Indian Archipelego.

CONSPECTUS SPECIERUM.

Verticillastri superiores in spicam terminalem congesti.

Folia crassa, rugosa, subtus plus minusve tomentosa.

Corollæ tubus calyce longior 1. *G. STROBILINUM*.

Corollæ tubus calyce brevior 3. *G. HEYNEANUM*.

Folia tenuia utrinque viridia, pubescentia 2. *G. VIRIDE*.

Verticillastri axillares, remoti, axillis superioribus sterilibus.

Caules elati ultra pedales sæpius 2-3-pedales.

Bracteæ ovatae vel oblongæ, paucae, calyce plerumque breviores.

Folia supra lucida, pilis longis hispida 5. *G. LUCIDUM*.

Folia supra breviter tomentosa, hispidula vel subglabra.

Corollæ faux amplissima 4. *G. OBLONGUM*.

Corolla tenuis, fauce vix dilatata.

Verticillastri densi, simplices. Dentes calycini e basi lata subulato-acuminati

9. *G. ERIOCARPUM*.

Verticillastri laxi, pedunculis compositis. Dentes calycini lanceolato-lineares

7. *G. MULTIFLORUM*.

Bracteæ lanceolato-lineares vel subulatæ, numerosæ, calyce longiores.

Bracteæ, dentesque calycini, e basi glabra subulato-acuminata . . .

8. *G. CRINITUM*.

Bracteæ, dentesque calycini, tomentosa, apice linearia . . .

6. *G. PARVIFLORUM*.

Caules semipedales vel vix pedales, basi radican-
cantes.

Folia supra glabra vel hispidula.

Caulis suberectus. Folia ampla. Corolla
ultra sesquipollicaris . . .

10. *G. OVATUM*.

Caulis procumbens. Folia minora. Co-
rolla 13-14 lin. longa . . .

11. *G. MELISSÆFOLIUM*.

Folia utrinque dense velutina . . .

12. *G. VELUTINUM*.

Species non satis notæ: 13. *G. PHLOMOIDES*; 14. *G. JAVANICUM*.

1. *G. STROBILINUM* (Wall.; Benth. in Wall. Pl. As. Rar. 2. 12), caule erecto, foliis elliptico-ovatis rugosis supra hispidis subtus tomentosis, verticillastris in spicam terminalem congestis vel infimis remotis axillaribus, foliis floralibus bracteiformibus lato-ovatis calyces superantibus, calycibus campanulatis molliter tomentosis dentibus ovato-lanceolatis, corollis calyce subtriplo longioribus.

Hab. in regno Burmannico ad Meong, Prome, et in monte Taong Dong Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis crassus, subsimplex, obtuse tetragonus, sulcatus, tomentosus, 1-3-pedalis. Folia caulina petiolata, 6-10 pollices longa, 3-6 pollices lata, crenata; floralia sessilia, pollicaria, supra fuscescentia, glabra vel apicem versus pubescentia, subtus rugosa, tomentosa, irregulariter dentata. Verticillastri nunc omnes spicati, spica 4-6 pollicari vel interdum fere pedali crassa densa, nunc inferiores remoti, axillares, pauciflori, vel nonnulli in spiculas breves axillares approximati. Corolla flava, extus pubescens; tubo calycem superante, vix incurvo, fauce valde inflata. Achenia siccitate rugosissima, glabra, uno alterove fertili, cæteris sæpius abortivis.

2. *G. VIRIDE* (Wall.; Benth. in Wall. Pl. As. Rar. 2. 12), caule erecto, foliis elliptico-ovatis flaccidis supra hispidulis subtus pubescentibus, verticillastris paucifloris in spicam brevem terminalem congestis, foliis floralibus bracteiformibus lato-ovatis calyces superantibus, calycibus campanulatis molliter villosis dentibus lanceolatis, corollis calyce duplo longioribus.

Hab. in regni Burmannici provincia Tavoy Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

G. strobilino valde affine, sed statura humilior. Folia læte viridia, flaccida, haud rugosa, subtus vix tomentosa. Spica brevis, pauciflora. Calyx amplus. Corollæ tubus brevior quam in *G. strobilino*.

3. *G. HEYNEANUM* (Wall.; Benth. in Wall. Pl. As. Rar. 2. 12), caule erecto, foliis elliptico-ovatis rugosis supra molliter subtus dense floccoso-tomentosis, verticillastris in spicam terminalem congestis vel infimis subremotis axillaribus, foliis floralibus bracteiformibus lato-ovatis calyces superantibus, calycibus campanulatis molliter tomentosis, dentibus ovato-lanceolatis corolla vix brevioribus.

Hab. in Indiæ orientalis peninsulæ montibus prope Courtallum Heyne! (*h. s. sp. e Mus. Angl. Ind.*)

Habitus et statura *G. strobilini*, differt tomento floccoso, foliis floralibus supra rugosis tomentosis nec glabratis, corollis minoribus, tubo incluso, labiis vix calycem superantibus.

4. *G. OBLONGUM* (Wall. ; Benth. in Wall. Pl. As. Rar. 2. 12), caule erecto, foliis oblongo-ellipticis rugosis supra hispidulis subtus dense tomentosis, floralibus conformibus, verticillastris axillaribus remotis paucifloris, calycibus campanulatis tomentosis dentibus lanceolato-linearibus elongatis acutis, corollis calyce triplo longioribus.

Hab. in regni Burmannici provincia Tavoy *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caulis 1-2-pedalis. Folia fere *G. strobilini*, sed minora, angustiora. Verticillastri 2-4, axillares, 6-10-flori. Corolla extus pubescens, ultra-1½-pollicaris, tubo gracili, apice valde inflato. Bracteæ parvæ, lineares, lanceolatæ vel ovatæ.

5. *G. LUCIDUM* (Wall. ; Benth. in Wall. Pl. As. Rar. 2. 12), caule erecto, foliis elliptico-ovatis supra lucidis piloso-hispidis subtus dense rufo-tomentosis, floralibus conformibus, verticillastris axillaribus remotis, calycibus tubuloso-campanulatis tomentosis dentibus lanceolatis abbreviatis, corollis calyce triplo longioribus.

Hab. in India orientali ad Choppedong oræ Tenasserim et in Pundua *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitus præcedentis, sed robustior. Caulis 2-3-pedalis dense rufo-tomentosus. Folia breviter petiolata, utrinque angustata, levissime dentata vel integerrima. Verticillastri 10-30-flori. Corolla flava, extus dense tomentosa. Dentes calycini vix lineam longi.

6. *G. PARVIFLORUM* (Wall. ; Benth. in Wall. Pl. As. Rar. 2. 12), caule erecto, foliis elliptico-ovatis supra pubescentibus subtus tomentosis, floralibus conformibus, verticillastris axillaribus remotis laxè multifloris, bracteis lanceolatis linearibusve calyces superantibus, calycibus campanulatis dentibus lanceolato-linearibus apice subulatis, corollis gracilibus calyce duplo longioribus.

Hab. in India orientali : in Napalia, Sillet et ins. Penang *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitu præcedentibus affine, sed flores in axillis numerosissimi, laxè fasciculati. Corolla flava, extus pubescens, 9-10-lineas longa, tubo gracillimo, fauce minus inflata, limbo parvo.

7. *G. MULTIFLORUM*, caule erecto, foliis ellipticis supra vix pubescentibus subtus tomentosis, floralibus conformibus, verticillastris axillaribus remotis laxè multifloris, bracteis ovatis foliaceis calyces superantibus, calycis dentibus lanceolato-linearibus, corollis gracilibus calyce pluries longioribus.

Hab. in Indiæ orientalis provincia Sillet *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Hæc species, quam cum *G. parviflora* Wallichius e Sillet recepit, ab illa differt præcipue bractearum forma. Folia angustiora videntur.

8. *G. CRINITUM* (Wall. ; Benth. in Wall. Pl. As. Rar. 2. 12), caule erecto, foliis elliptico-ovatis supra pubescentibus subtus tomentosis, floralibus conformibus, verticillastris axillaribus remotis laxè multifloris, bracteis lineari-setaceis calycem subæquantibus, calycibus tubuloso-campanulatis fructiferis inflatis basi glaberrimis dentibus elongatis setaceis hispidis, corollis gracilibus calyce duplo longioribus.

Hab. in regni Burmannici provincia Tavoy Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Habitus, inflorescentia et corolla *G. parviflori*, bracteis et calyce distinctissimum, folia ampliora, minus rugosa.

9. *G. ERIOCARPUM* (Benth. in Wall. Pl. As. Rar. 2. 12), caule adscendente, foliis elliptico-oblongis grosse dentatis supra hispidulis subtus tomentosis, floralibus conformibus, verticillastris remotis paucifloris, bracteis ovatis denticulatis, calycibus campanulatis demum inflatis tomentosis dentibus lineari-setaceis, corollis villosis calyce duplo longioribus, acheniis tomentosis.

Hab. in India orientalis Peninsula prope Courtallum Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Caulis elongatus, tenuior quam in speciebus præcedentibus. Folia 3-4 pollices longa, sesquipollicem lata, acute dentata. Verticillastri pauci, sub-10-flori.

10. *G. OVATUM* (Wall.; Benth. in Wall. Pl. As. Rar. 2. 12), caule basi radicante erectiusculo, foliis lato-ovatis supra lucidis hispidulis subtus molliter tomentosis, floralibus conformibus, verticillastris axillaribus remotis multifloris, bracteis lato-ovatis exterioribus calycem subæquantibus, calycibus campanulatis villosotomentosis dentibus lanceolato-linearibus, corollis calyce triplo longioribus.

Hab. in Napalia Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Folia minora et latiora quam in præcedentibus. Corolla flava, pubescens, fere sesquipollicaris, tubo calyce duplo longiore, fauce amplissima.

11. *G. MELISSÆFOLIUM* (Wall.; Benth. in Wall. Pl. As. Rar. 2. 12), caule basi repente radicante ramis adscendentibus, foliis ovatis glabriusculis vel supra hispidulis subtus parce tomentosis, floralibus conformibus, verticillastris axillaribus remotis laxè paucifloris, bracteis ovatis exterioribus calycem æquantibus, calycibus hispidis dentibus lanceolato-linearibus, corollis calyce subtriplo longioribus.

Prasium melissæfolium. Roxb.! Hort. Beng. 45. Fl. Ind. 3. 26.

Hab. in Indiæ orientalis provincia Sillet Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

G. ovato valde affine, differt caule basi repente, foliis subtus vix tomentosis floribusque minoribus. Corollæ 13-14 lin. longæ, tubo gracili, apice parum dilatato.

12. *G. VELUTINUM* (Benth. in Wall. Pl. As. Rar. 1. 13), caule basi repente radicante, ramis adscendentibus, foliis ovatis crassis utrinque dense velutino-pubescentibus, floralibus conformibus, verticillastris axillaribus remotis paucifloris, bracteis oblongis calycem æquantibus, calycibus tomentosis dentibus ovato-lanceolatis, corollis calyce duplo longioribus.

Hab. in Indiæ orientalis provincia Sillet Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Species distinctissima affinis *G. melissæfolio*. Folia 12-18 lineas longa, 8-15 lineas lata. Corollæ flavæ, 11-12 lineas longæ, tubo gracili apice valde dilatato.

13. *G. PHLOMOIDES*.

Prasium phlomoides. Herb. Reinw. ex Blume Bijdr. 840.

Hab. in Javæ sylvis montosis altioribus Blume.

"P. foliis oblongis utrinque acutis denticulatis, supra pilosis, infra dense stellato-tomentosis, floribus fasciculatis axillaribus."—*Blume l. c.*

14. *G. JAVANICUM.*

Prasium javanicum. *Blume Bijdr.* 840.

Hab. in Javæ sylvis montosis humidis *Blume.*

"P. foliis (majusculis) oblongis utrinque acuminatis denticulatis, supra hirsutis, subtus pube stellari subtomentosis, floribus subfasciculatis axillaribus."—*Blume l. c.*

XCVIII. PHYLLOSTEGIA.

Prasii sp. *Gaudichaud in Freyc. Voy.* 452.

Phyllostegia. *Benth. in Bot. Reg.* 15. ad calc. n. 1292.

Calyx campanulatus, ovatus vel tubulosus, 10-nervius, subæqualis, nunc quinquefidus lobis ovatis foliaceis, nunc breviter quinquedentatus. Corolla tubo calycem superante, nunc longe exserto, sæpius incurvo, intus exannulato, fauce subæquali, limbo bilabiato, labio superiore subpatente integro subplano, inferiore longiore patente trifido, lobis ovatis, medio majore integro. Stamina 4, sub labio superiore adscendentia. Antheræ biloculares, loculis divergentibus vel demum divaricatis. Stylus apice clavatus subinteger vel breviter bifidus, lobis clavato-divaricatis vel arcuatis. Stigmata terminalia, sæpe incrassato-capitata. Achenia carnosæ.—Herbæ erectæ vel adscendentes subsimplices. Folia petiolata, ovata, sæpius dentata. Verticillastri 6-10-flori, in racemo laxo terminali dispositi vel infimi axillares. Folia floralia superiora parva, bractæformia. Bractæ parvæ, subulatæ, vel subnullæ.

All the species are from the Sandwich Islands.

CONSPECTUS SPECIERUM.

Rami pilis longis patentibus hirsutissimi.

Calyces ampli, laciniis foliaceis.

Racemi terminales. Calycis lacinie denticulatæ 1. *P. DENTATA.*

Verticillastri axillares. Calycis lacinie integerrimæ 2. *P. VESTITA.*

Calyces parvi, breviter dentati 11. *P. HIRSUTA.*

Rami glabri vel pubescentes.

Pedunculi saltem inferiores elongati, trifidi vel ramosi.

Calyces glabri.

Corolla 14-15 lineas longa 4. *P. CHAMISSONIS.*

Corolla vix 6-8 lineas longa 5. *P. GLABRA.*

Calyces hirsutissimi 12. *P. FLORIBUNDA.*

Pedunculi communes nulli. Pedicelli uniflori.

Lacinie calycinae foliaceae patentes 3. *P. GRANDIFLORA.*

Dentes calycini breves, erecti vel patentes.

Corolla semipollicaris vel longior. Verticillastri laxi.

Folia oblonga, basi rotundata 6. *P. MACROPHYLLA.*

Folia lato-ovata, basi subcordata, mollior villosa 7. *P. PARVIFLORA.*

Corolla vix 3-4 lineas longa. Verticillastri densi.

Folia lato-ovata.

Styli lobi clavati, recurvo-divaricati 8. *P. MOLLIS*.

Stylus apice clavatus, lobis brevissimis 9. *P. CLAVATA*.

Folia ovato-lanceolata vel oblonga 10. *P. RACEMOSA*.

1. *P. DENTATA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), hirsutissima, foliis basi rotundatis, racemo denso, calycibus amplis laciniis foliaceis dentatis, styli lobis clavatis.

Hab. in ins. Owhyhee ad montem Raah et sinum Byron *Macrae!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caulis herbaceus, erectus, subsimplex, ultrapedalis, obtuse tetragonus, uti folia et calyces pilis longis rigidis hirsutus. Folia longe petiolata, acuminata, margine serrato-crenata, 3-4-pollicaria; floralia infima subconformia, superiora subsessilia, calyce fructifero breviora. Racemus 3-4-pollicaris. Bracteae parvae, subulatae. Verticillastri sub-10-flori. Pedicelli rigidi, hispidissimi, calyce breviores. Calyx semipollicaris, fructifer longior campanulatus, viridis, foliaceus, hispidissimus, laciniis late ovato-lanceolatis, acutis; tubo æquilongis. Corolla parva.

2. *P. VESTITA* (Benth. in l. c.), hirsutissima, foliis basi rotundato-truncatis, floralibus conformibus, verticillastris axillaribus distantibus, calycibus amplis laciniis foliaceis integerrimis, styli lobis clavatis.

Hab. in ins. Owhyhee ad sinum Byron *Macrae!* (*v. s. sp. in herb. Soc. Hort. Lond. et Lindl.*)

AP. vestita differt foliis minoribus et characteribus supra notatis.

3. *P. GRANDIFLORA* (Benth. in l. c.), adpresse pubescens vel glabriuscula, foliis basi rotundatis, racemo laxo, dentibus calycinis lato-ovatis foliaceis integerrimis patentibus, corollis incurvis calyce plus triplo longioribus, styli lobis arcuatis.

Prasium grandiflorum. Gaudich. in Freyc. Voy. 453. t. 65. f. 2.

Hab. in ins. Oahu Gaudichaud, *Macrae! Chamisso! Beechey!* (*h. s. sp. e Mus. Soc. Hort. Lond., et comm. a cl. Chamisso.*)

Caules duri procumbentes vel adscendentes, ramosi, ramis junioribus pilis brevibus adpresso-reflexis rigidis pubescentibus, demum glabratis. Folia petiolata 1-2-vel inferiora sub 3-pollicaria, vix acuminata, leviter crenulata, basi integerrima, subcoriacea, supra glabra, subtus præsertim juniora pubescentia; floralia infima subconformia, suprema parva bracteæformia. Racemus 2-4-pollicaris. Verticillastri sexflori. Pedicelli calycem subæquantes, uti calyces et corollæ pilis rigidis adpressis vestiti, pedunculo communi nullo. Calyx florifer 3 lin. longus, fructifer auctus inflatus; laciniæ obtusæ, supra glaberrimæ. Corolla cum labio inferiore 14-15 lin. longa, subcoriacea, extus pilis adpressis villosissima; tubus longe exsertus incurvus, æqualis, intus nudus; limbi labium superius breve, ovatum, patens, subintegrum, inferius triplo longius; laciniis latis, intermedia latissima integra.

4. *P. CHAMISSONIS* (Benth. in Linnæa, 6. 79), glaberrima, foliis basi rotundatis, racemo laxo, pedunculis elongatis trifidis, calycibus breviter quinquentatis, corollis incurvis calyce quadruplo longioribus.

Prasium glabrum. Gaudich. in Freyc. Voy. 452. t. 64.*

* I had erroneously quoted this as a synonym to the next species, for which I had consequently adopted Gaudichaud's specific name. To avoid confusion, I have not now changed my specific names.

Hab. in ins. Oahu *Chamisso!* *Beechey!* *Mowee Menzies!* (*h. s. sp. comm. a cl. Chamisso.*)

Caulis ramosus. Folia fere *P. grandifloræ*, sed uti tota planta glaberrima; floralia foliacea, semipollicaria, breviter petiolata vel subsessilia, ovata, acuta, subdentata, suprema minora. Racemus semipedalis et ultra. Pedunculi versus medium trifidi, bracteis minutis subulatis. Calyx tenuis, dentibus lanceolatis obtusiusculis. Corollæ magnitudine *P. grandifloræ*, labio inferiore maximo.

5. *P. GLABRA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), glaberrima, foliis basi rotundato-truncatis, racemis brevibus laxis foliosis, pedunculis inferioribus elongatis trifidis, calycibus breviter quinque-dentatis, corollis subrectis calyce vix triplo longioribus, styli lobis clavatis.

Hab. in ins. Oahu *Macrae!* *Beechey!* *Nelson!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

P. Chamissonis affinis, differt caulibus ramosioribus, racemis irregulariter subramosis et floribus fere dimidio minoribus. Pedunculi inferiores nunc ut in *P. Chamissonis* elongati, trifidi, nunc in racemulos abeuntes, nonnulli abortivi, pedicellis interdum folia loco floris gerentibus. Folia floralia alia caulinis subconformia, alia parva, sessilia, reflexa.

6. *P. MACROPHYLLA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), glabriuscula vel apice pubescens, foliis oblongis basi rotundatis, racemo brevi laxo, calycibus breviter 5-dentatis, corollis rectis calyce subtriplo longioribus, styli lobis arcuatis.

Prasium macrophyllum. *Gaudich. in Freyc. Voy. 453. t. 65. f. 3.*

Hab. in ins. Sandwich *Gaudichaud, Menzies!* *Nelson!* in ins. Owhyhee ad montem Raah *Macrae!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Folia fere *P. grandifloræ*, sed angustiora, sublongiora. Inflorescentia *P. grandifloræ*. Pedicelli et calyces pilis brevibus mollibus patentibus nec adpressis pubescentes. Dentes calycini erecti, nec foliacei. Flores vix pollicares. Corollæ tenuissime pubescentes.

7. *P. PARVIFLORA* (Benth. in Linnæa, 6. 79), pubescenti-villosa, foliis basi rotundatis cordatisve subtus molliter villosis, pedicellis calyce longioribus, dentibus calycinis brevibus acutis, corollæ tubo calyce triplo longiore, styli lobis clavatis recurvato-divaricatis.

Prasium parviflorum. *Gaud. ! in Freyc. Voy. 453. t. 65. f. 1.*

Phyllostegia leptostachys. *Benth. in Bot. Reg. 15. ad calc. n. 1292.*

Hab. in ins. Oahu *Gaudichaud!* *Chamisso!* *Beechey!* *Macrae!* *Nelson!* (*h. s. sp. comm. a cl. Chamisso.*)

Folia lato-ovata, sæpe acuminata, crenata, 3-4-pollicaria, supra subrugosa tenuiter pubescentia, subtus pube molli subcanescentia. Racemus laxis, gracilis. Folia floralia minuta. Pedicelli sæpius 3-5 lin., calyx vix 1½ lin. longi. Corolla semipollicaris, glabra; tubo parum incurvo.

8. *P. MOLLIS* (Benth. in Linnæa, 2. 79), molliter velutino-pubescent, foliis basi cordatis, pedicellis calyce brevioribus, dentibus calycinis abbreviatis obtusis, corollæ tubo calycem breviter superante, styli lobis clavatis recurvato-divaricatis.

Hab. in ins. Sandwich *Chamisso!* (*v. s. sp. in herb. Chamisso.*)

A *P. parviflora* corollis fere dimidio minoribus et aliis notis diversa; affinium videtur *P. clavata*, sed pubescentia densiore molliore, et styli forma differt. Verticillastri sexflori.

This character is taken from my notes and sketch made at Berlin, in 1830. I have not the plant now before me to compare with *P. clavata*, of which it may possibly be a variety.

9. *P. CLAVATA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), pubescens, foliis basi rotundato-truncatis subcordatisve, pedicellis calyce subbrevioribus, dentibus calycinis abbreviatis obtusis, corollæ tubo calycem breviter superante, stylo apice clavato stigmatibus complanatis recurvis.

Hab. in ins. Owhyhee monte ignovomo *Macrae*! (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Folia forma et magnitudine *P. grandifloræ*, at minus coriacea et villosiora; floralia infima subconformia, suprema bractæformia. Verticillastri 6-10-flori, infimi axillares remoti, superiores approximati. Corolla vix 4 lin. longa, tubo crassiusculo pubescente, labiis brevibus vix inæqualibus. Calyx florifer campanulatus, fructifer auctus patens.

10. *P. RACEMOSA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), villosa, foliis ovato-lanceolatis basi cordatis, verticillastris multifloris, pedicellis brevissimis, corollis calyce dimidio longioribus, styli lobis clavatis.

Hab. in ins. Owhyhee: ad montem Raah *Macrae*! (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Habitus fere *Stachydis grandidentatæ*. Pubescentia subviscosa videtur. Folia sesquipollicaria molliter rugosa; floralia infima conformia minora, suprema parva, rotundata, dentata, breviter petiolata, floribus breviora. Verticillastri circiter 10-12-flori, infimi remoti, supremi magis approximati. Corolla vix 3 lin. longa, forma *P. clavatæ*.

11. *P.?* *HIRSUTA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), hirsutissima, foliis amplis basi cordatis, racemis ramosis, calycibus glabris breviter quinquedentatis.

Hab. in ins. Oahu *Macrae*! (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caulis, ut in *P. dentata*, pilis patentibus densissime vestitus. Racemus ramosus. Pedicelli breves pubescentes. Calyces *P. mollis*. Corollam non vidi, sed ob affinitatem cum præcedentibus ad hoc genus hanc speciem retuli.

12. *P. FLORIBUNDA*, pubescens vel hirsuta, foliis ellipticis amplis basi rotundatis angustatisve, cymis axillaribus laxè ramosissimis multifloris hirsutissimis, calycibus hirsutis, dentibus linearibus tubo subæquilongis, corollis calyces breviter superantibus.

Hab. in ins. Sandwich *Nelson*! (*v. s. sp. in herb. Banks.*)

Rami duri, lignosi? pilis adpressis pubescentes. Folia longe petiolata, 2-5-pollicaria, tenuia, pilis brevibus hispidula. Corymbi vel cymæ fere ut in *Bystropogone* ampla ramosissima. Bractæ parvæ, ovatæ vel oblongæ. Pedicelli calyce sublongiores. Calyx 2-3 lin. longus, tenuis, fructifer dilatatus. Corolla parva, glabra, forma fere *P. racemosæ* at tenuior.

Planta Chamissoniana, cui ex inspectione cursiva nomen *Phyllostegia microphyllæ* imposui, ut commemorat cl. de Chamisso in Linnæa, 6. 570, est *Verbenacea* quædam, et idcirco in *Labiatarum* Chamissonianarum enumeratione (Linnæa, 6. 76) silentio præterivi.

XCIX. STENOGYNE.

Stenogyne. Benth. in Bot. Reg. 15. ad calc. n. 1292.

Calyx ovato-campanulatus, 10-nervius, subæqualis vel oblique bilabiatus, nunc 5-fidus lobis ovatis foliaceis, nunc 5-dentatus dentibus 3 superioribus minus profunde fissis. Corolla tubo calycem superante incurvo, intus piloso annulato,* fauce dilatata, limbo bilabiato, labio superiore erecto emarginato, inferiore patente trifido, laciniis subæqualibus integris. Stamina 4, sub labio superiore adscendentia. Antheræ biloculares, loculis demum divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis. Stigmata minuta. Achenia carnosæ.—Herbæ ramosæ, procumbentes adscendentes, vel erecti, ramis divaricatis subscandentibus? Folia sæpe coriacea, crenata. Verticillastri subsexflori, axillares (foliis floralibus caulinis conformibus) distantes, vel ad apices ramorum approximati. Bracteæ parvæ, subulatæ, vel subnullæ.

This genus, like *Phyllostegia*, is confined to the Sandwich Islands, and differs from it chiefly in the conformation of the style, the form of the corolla, and the axillary inflorescence.

1. *S. MACRANTHA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), hirsutissima, foliis petiolatis ovatis basi cordatis, verticillastri axillaribus distantibus, pedicellis calycem æquantibus.

Hab. in ins. Owhyhee ad montem Raah *Macrae!* (v. s. sp. in herb. Lindley.)

Exemplaria manca, sed ad speciem distinctissimam pertinent. Hirsuties, folia et etiam calyces *Phyllostegia vestitæ*, sed corollæ diversissimæ. Sunt nempe sesquipollicares, tubo longe exserto incurvo, fauce valde dilatata; labio superiore vix inferiore brevior. Stylus omnino *Stenogynes* nec *Phyllostegia*.

2. *S. SESSILIS*, glabra, foliis sessilibus rotundatis basi cordatis coriaceis, verticillastri ad apices ramorum approximatis.

Hab. in ins. Sandwich *Menzies!* (v. s. sp. in herb. Banks et Hooker.)

Caulis adscendens, glaber vel ad nodos pilosus, tetragonus, angulis acutis subasperis. Folia glaberrima, regulariter crenata, nervoso-rugosa; floralia minora at conformia. Verticillastri pauci, secundi. Bracteæ minutæ lineares. Calyces semipollicares, subsessiles, glabri, campanulati, irregulariter 5-dentati vel bilabiati, dentibus latis rotundatis. Corolla calyce duplo longior, extus villosa, tubo amplo incurvo. Labium superius breviter emarginatum, inferius vix longius, lobis rotundatis, lateralibus suberectis, intermedio patente. Genitalia corolla sublongiora.

3. *S. CORDATA*, glabra, foliis inferioribus breviter petiolatis superioribus sessilibus omnibus ovatis basi cordatis coriaceis, verticillastri axillaribus distantibus.

Hab. in ins. Sandwich *Nelson!* (v. s. sp. in herb. Banks.)

Ab affini *S. sessili* differt ramis tenuioribus, foliis minoribus angustioribus, inflorescentia, et floribus minoribus.

* Saltem in *S. rugosa* et *scrophularioides*.

4. *S. RUGOSA* (Benth. in Bot. Reg. 15. ad calc. n. 1292), glabra, foliis breviter petiolatis oblongis coriaceis basi rotundato-truncatis, verticillastris axillaribus distantibus, pedicellis calyce brevioribus.

Hab. in ins. Owhyhee ad montem Raah, et in monte ignivomo *Macrae!* *Menzies!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Caulis erectus? divaricato-ramosus? vix tetragonus, uti tota planta glaberrimus. Folia $1\frac{1}{2}$ -2-pollicaria, crenata, aspera, rugosa, nervosa; floralia omnino conformia, flores longe superantia. Verticillastri sub-6-flori, omnes axillares, axillis superioribus sterilibus. Pedicelli 1-2 lin. longi. Calyces 4-5 lin. longi, glabri, dentibus ovato-lanceolatis obtusis, 2 infimis brevioribus sed profundius fissis. Corolla vix calyce duplo longior, fere glabra, forma *S. scrophularioidis*.

5. *S. MICROPHYLLA*, glabra, foliis parvis petiolatis acutis basi angustatis, verticillastris paucis bifloris secundis, calycibus folia subæquantibus brevissime pedicellatis.

Hab. in ins. Owhyhee ad montem Raah *Macrae!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Rami elongati, ramosi, divaricato-flexuosi, subscandentes, acute tetragoni. Folia vix 3-4 lin. longa, acute serrata. Pedicelli brevissimi, sub calycibus bibracteolati. Corolla calyce duplo longior, forma omnino *P. rugosæ*, tubo intus annulato. Genitalia exserta.

6. *S. SCROPHULARIOIDES* (Benth. in Bot. Reg. 15. ad calc. n. 1292), glaberrima, foliis petiolatis ovatis flaccidis, verticillastris axillaribus distantibus, pedicellis fructiferis calyce longioribus, corollis pubescentibus calyce duplo longioribus.

Hab. in ins. Sandwich *Menzies!* in ins. Owhyhee ad sinum Byron *Macrae!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Rami divaricati, flexuosi, subscandentes? tetragoni, læves. Folia 1-1 $\frac{1}{2}$ -pollicaria, serrato-crenata, basi rotundato-truncata, petiolo apice subdilatato; floralia omnino conformia, flores superantia. Verticillastri sexflori, omnes distantes, axillis superioribus sterilibus. Pedicelli floriferi 2-3, fructiferi 6-7 lin. longi, demum reflexi. Calyces vix 3 lin. longi, irregulariter 3-5-dentati, fructiferi globosi, subavenii. Corolla calyce triplo longior, extus pubescens; labium superius incurvum, brevissimum, emarginatum, inferius brevius, lobis latis rotundatis, suberectis. Genitalia breviter exserta.

7. *S. NELSONI*, glabra, foliis petiolatis ovatis subflaccidis, verticillastris axillaribus distantibus, pedicellis fructiferis calyce longioribus, corollis subglabris calyce 3-4-plo longioribus.

Hab. in ins. Sandwich *Nelson!* (*v. s. sp. in herb. Banks.*)

Affine *S. scrophularioidi*, differt foliis majoribus subcoriaceis, floribus in verticillastro numerosis, calycibus longioribus. Corollæ duplo longiores. Genitalia longe exserta.

C. PRASIUM.

Prasium. Linn. Gen. 302.

Calyx campanulatus, 10-nervius, irregulariter bilabiatus, labio superiore breviter 3-fido, inferiore profundius bifido, laciniis omnibus foliaceis ovatis. Corolla tubo incluso, intus pilis squamosis annulato,

limbo subæqualiter bilabiato, labio superiore ovato integro, inferiore trifido, lacinia intermedia majore integra. Stamina 4, sub labio superiore adscendentia. Antheræ biloculares, loculis demum divaricatis. Stylus apice subæqualiter bifidus, lobis subulatis. Stigmata minuta. Achenia carnosa.

This genus contains but one species, from the Mediterranean region.

1. *P. MAJUS* (Linn. ! Spec. 838).

P. minus. Linn. ! Spec. 838.

Hab. in Europæ et Africæ borealis regione Mediterranea: in Lusitania *Durand* ! Hispania *Pavon* ! agro Tingitano *Salzmann* ! ins. Balearicis *Cambessèdes*, Corsica *Viviani* ! Sardinia *Müller* ! Sicilia *Gussone* ! Italia australi *Requien* ! *Tenore* ! in Peloponneso tum in littore Cariensi et ins. Zacyntho *Sibthorp* ! in collibus maritimis Pentapoleos *Viviani*, etiam in ins. Madera *Masson* ! (*h. s. sp.*)

Suffrutex divaricato-ramosus. Rami herbacei, semipedales vel pedales uti tota planta sæpius glaberrimi, juniores rarius cum foliis nonnullis hispiduli. Folia petiolata, $\frac{1}{2}$ -1-pollicaria, ovata, acuta, basi rotundato-truncata vel subcordata, margine irregulariter serrato-crenata; floralia conformia, vel suprema minora integriora, omnia calyces superantia. Verticillastri biflori, omnes distantes axillares. Bractæ minutæ vel nullæ. Calyces breviter pedicellati, late campanulati, virides, glabri, laciniis ovatis aristatis, nunc omnibus æqualibus, sæpius 3 superioribus in labium superius connatis. Corolla albida vel pallide purpurascens, glabra, tubo amplo. Genitalia corolla breviora.

Species e genere excludendæ.

P. COCCINEUM Walt. = *Physostegia virginiana* ?

P. GLABRUM Gaudich. = *Phyllostegia Chamissonis*.

P. GRANDIFLORUM Gaudich. = *Phyllostegia grandiflora*.

P. HIRSUTUM Poir. = *Stachys Swainsoni*.

P. INCARNATUM Walt. = *Macbridea pulchella*.

P. JAVANICUM Blume. = *Gomphostemma javanicum*.

P. MACROPHYLLUM Gaudich. = *Phyllostegia macrophylla*.

P. MELISSÆFOLIUM Roxb. = *Gomphostemma melissæfolium*.

P. PARVIFLORUM Gaudich. = *Phyllostegia parviflora*.

P. PHLOMOIDES Blume. = *Gomphostemma phlomoides*.

P. PURPUREUM Walt. = *Physostegia virginiana* ?

TRIBUS XI. AJUGOIDEÆ.

COROLLÆ labium superius nunc brevissimum, nunc fissum laciniis demissis, rarissime erectum fornicatum, inferius elongatum. Stamina 2, vel 4, adscendentia, sæpissime exserta, labio opposita. Achenia plus minusve reticulato-rugosa.

This tribe, being chiefly the *Unilabiata* of Schreber, is perhaps more naturally characterised by the rugose achenia, thus taking in *Craniotome*, *Cymaria*, which I had originally referred to *Nepeteæ* and *Isanthus*, already described under *Menthoideæ*, but which is too closely related to *Trichostemma* to be so far separated; and excluding *Anisomeles*, a genus evidently allied to *Stachys*. In the section *Scorodonia* of *Teucrium*, the rugosity of the achenia is not so strongly marked as in the other sections, as well as all other genera of the tribe; but even here it is perceptible, and the form of the corolla leaves no doubt as to its place.

In many *Ajugoideæ*, especially in some *Teucris*, *Ajuga*, *Cymaria*, &c., the ovarium is less deeply cleft than in other *Labiata*; and in *Cymaria* it is very evidently bipartite, with bifid divisions, instead of being equally quadripartite; thus connecting the tribe with the closely allied one of *Verbenaceæ*.

CI. AMETHYSTEÆ.

Amethystea. Linn. Gen. 15.

Calyx subglobosus, campanulatus, erectus, æqualis, 5-dentatus. Corolla tubo calyce brevior, intus exannulato, limbo declinato, lobis 4 superioribus subæqualibus demissis, inferiore majore. Stamina 2 (inferiora), adscendentia, inter lacinias corollæ supremas exserta, superiorum rudimenta minuta, filiformia. Antheræ biloculares, loculis demum divaricatis subconfluentibus. Stylus apice subæqualiter bifidus. Achenia reticulato-rugosa.

This Siberian genus only differs from the section *Teucris* of *Teucrium* by the abortion of the upper stamina. In habit it is closely allied to *Teucrium corymbosum* and *africanum*.

1. A. CÆRULEA (Linn. ! Spec. 30.)

A. corymbosa. Pers. Syn. 1. 24.

Hab. in Asia Rossica a regione Pontica! ad jugum Altaicum *Ledebour*! Dahuriam *Pallas*! &c., et in China *G. Staunton*! (*h. s. sp.*)

Herba annua, erecta, circiter pedalis, ramosa, glabra, sæpe cærulescens, ramis lucidis. Folia petiolata, 3-5-partita, segmentis oblongo-lanceolatis, inciso-dentatis;

floralia minora, suprema minuta. Cymæ pedunculatæ, laxæ, racemoso-paniculatæ. Bracteæ minutæ. Calyces cœrulescentes, erecti, glaberrimi, dentibus lanceolatis acutissimis. Corollæ vix calycem excedentes, cœruleæ.

CII. TRICHOSTEMMA.

Trichostemma. Linn. Gen. 300.

Calyx nunc campanulatus, subæqualis, profunde 5-fidus, nunc depresso-campanulatus valde obliquus, dentibus 3 superioribus (tensione pedunculi inferioribus) elongatis connatis, 2 inferioribus (superioribus) brevissimis. Corolla tubo tenui sæpius exserto intus exannulato, limbo subæqualiter 5-fido, laciniis oblongis declinatis, inferioribus vix majoribus. Stamina 4, didynama, inferioribus longioribus, longissime exserta. Filamenta interdum submonadelphæ. Antheræ subbiloculares, loculis divaricatis vel divergentibus. Stylus apice bifidus, lobis subulatis, stigmatibus minutis. — Herbæ. Folia integerrima. Inflorescentia axillaris vel racemosa.

This North American genus consists of but few species nearly allied to *Teucrium* in characters, though different in habit from any sections of that genus. The *Isanthus* of Michaux, which is the *Trichostemma brachiatum* of Linnæus, is perhaps too nearly related to this genus to remain among *Menthoideæ*, where I had placed it on account of the form of its corolla. If transferred to the *Ajugoideæ* on account of its reticulate-rugose achenia, it should be placed immediately before *Trichostemma*.

The Linnæan character for this genus is *Filamenta longissima*, and that of one of its two species *T. staminibus brevibus inclusis*!

SECTIO I. STREPTOPODIUM.

Calyx valde obliquus, tensione pedicelli reversus. Pedicelli solitarii, oppositi, uniflori.

1. *T. LINEARE* (Nutt. Gen. Pl. N. Amer. 2. 39), glabrum, foliis linearibus, floribus solitariis oppositis reversis, calycibus valde obliquis.

T. dichotomum. Roth. Nov. Pl. Sp. 280.

T. brachiatum. Lam. Ill. 3. t. 515 (*staminibus deficientibus?*) non Linn.

Hab. in America boreali a Philadelphia et Nova Jersey Torrey! ad Lousianam Drummond! (*h. s. sp.*)

A *T. dichotomo* non differt, nisi glabritie constantiore, statura sæpius parum elatiore, foliorum forma et corollis parum majoribus. Foliorum forma constans videtur.

2. *T. DICHOTOMUM* (Linn. Spec. 834), glabrum vel pubescens, foliis petiolatis oblongis, floribus solitariis oppositis reversis, calycibus valde obliquis.

T. pilosum. Roth. Nov. Pl. Sp. 280.

Hab. in America boreali a Canada *Pursh!* ad Carolinam *Bosc!* *Wray!* &c. (*h. s. sp.*)

Herba annua, erecta, $\frac{1}{2}$ -1-pedalis, apice paniculato-ramosissima. Folia inferiora circiter pollicaria, obtusa, basi angustata, utrinque viridia, superiora minora; floralia suprema vel omnia bracteæformia, pedicello breviora. Flores secus ramos oppositi, secundi. Pedicelli calycem fructiferum subæquantes torti. Calyx florifer parvus vix inæqualis, fructifer 3-4 lin. longus, valde obliquus, dentibus 3 superioribus (reversione calycis inferioribus) valde auctis basi connatis apice lato-lanceolatis acutissimis, 2 inferioribus (reversione superioribus) triplo brevioribus liberis latis acutis. Corolla parva, tubo calycem subæquante, genitalibus 4-6 lin. exsertis.

SECTIO II. ORTHOPODIUM.

Calyx rectus æqualis. Cymæ multifloræ.

3. *T. OBLONGUM*, pubescens vel villosum, foliis oblongis basi angustatis, cymis axillaribus, calycibus subæqualiter 5-fidis, corollæ tubo inclusio.

Hab. in America boreali-occidentali in herbidis prope arcem Vancouver *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Herba annua, adscendens vel erecta, semipedalis pedalisve, ramosa, pubescentia brevi et pilis longis patentibus plus minusve villosa. Folia distantia, breviter petiolata, circiter pollicaria, obtusa, utrinque viridia, pilosa; floralia conformia. Verticillastri remoti. Cymæ laxiusculæ, multifloræ, folio breviores. Calyces subsessiles, dentibus anguste lanceolatis fere ad basin fissis. Corolla parva. Genitalia 2-3 lin. exserta, libera.

4. *T. LANCEOLATUM*, villosum, foliis lanceolatis, cymis axillaribus, calycibus subæqualiter 5-fidis, corollæ tubo exserto.

Hab. in America boreali-occidentali prope arcem Vancouver, in siccis ad fluvium Multnomah, et in Nova California *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Herba basi dura an perennis? erecta, ramosa, palmaris. Rami pubescentia brevi subviscosa et pilis longis patentibus villosi. Folia crebra, sessilia, circiter pollicaria, acuta, basi amplexicaulia vel inferiora in petiolum brevem angustata, 3-5-nervia, plana, utrinque viridia, pubescentia; floralia conformia ad latus floribus oppositum dejecta. Verticillastri axillares secundi distantes. Cymæ laxæ, plurifloræ, foliis tamen sæpius breviores. Calyces subsessiles, dentibus lato-lanceolatis acutis, fere ad basin calycis fissis. Corollæ pubescentes, tubo tenui breviter exserto, limbi lobis oblongis declinatis subæqualibus vel superioribus parum brevioribus. Genitalia 10-12 lin. exserta. Filamenta sæpius ultra medium connata, interdum omnino libera. Antheræ biloculares, loculis linearibus divaricatis.

5. *T. LANATUM*, foliis linearibus margine revolutis, floribus racemosis lanatis, calycibus subæqualiter 5-fidis, corollæ tubo longe exserto.

Hab. in California *Douglas!* (*h. s. sp. e Mus. Soc. Hort. Lond.*)

Perenne? vel fruticosum? Rami in exemplaribus suppetentibus sesquipedales, subsimplices, duri, vix tetragoni, tenuiter cano-tomentosi. Folia numerosa, fasciculata, forma fere *Rosmarini officinalis*, 1-2-pollicaria, obtusa, supra rugosa, glabra, subtus laxè tomentosa; floralia parva, suprema bracteæformia. Racemus densus, semipedalis. Verticillastri subsecundi laxiusculi, 10-20-flori. Bractæe lineares vel basi lanceolatae, calyce breviores. Calyces breviter pedicellati, late campanulati, uti bractæe lana densa sæpius rubescente obtecti, dentibus tubo subæquilongis latis

acutis. Corolla extus lanata, tubus calyce plus duplo longior, limbi lobi ovati, obtusi, superioribus minoribus. Genitalia fere sesquipollicem exserta. Filamenta libera. Antheræ biloculares, loculis ovatis divergentibus.

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Species e genere excludendæ.

T. BRACHIATUM Linn. = *Isanthus cœruleus*.

T. SPIRALE Lour. = *Orthosiphon stamineus* ? vel *Clerodendri* species ?

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CIII. TEUCRIUM.

Teucrium. Linn. et Auct. (excl. sp. paucis.)

Chamædrys, *Scorodonia*, *Scordium*, et *Polium.* Tourn. Mæench. Meth.

Leucosceptrum. Smith.

Calyx tubulosus vel campanulatus, rarius inflatus, quinquedentatus, dentibus æqualibus vel supremo sæpius latiore. Corolla tubo brevius intus exannulato, limbi laciniis 4 superioribus subæqualibus vel supremis latioribus longioribusve, nunc oblongis declinatis, nunc brevissimis suberectis, infima maxima rotundata vel oblonga, sæpius concava. Stamina 4, inter lacinias supremas exserta, didynama, inferioribus longioribus. Antherarum loculi confluentes. Stylus apice subæqualiter bifidus. Stigmata minuta. Achenia plus minusve rugosa. —Herbæ fruticesve inflorescentia et habitu varia.

This genus is found, in some form or other, over nearly the whole world. It is very nearly allied to both *Ajuga* and *Amethystea*, and might either include those two genera, or, with almost equal propriety, itself be broken up into as many genera as I have adopted sections; but in this case, as in that of *Hyptis* and other large genera, they must be chiefly characterised by inflorescence and the form of the calyx, both very variable characters. Thus the genus *Scorodonia* of Tournefort (my section *Scorodonia* with some other species) has been lately taken up by Seringe (Bull. Bot. 311), founded on the broad upper tooth of the calyx, usually but not always accompanied by less rugose achenia; but in so doing it becomes necessary to separate *T. hyrcanicum* and *Arduini* from *T. canadense* and *inflatum*, *T. spinosum* from *T. resupinatum*, and *T. betonicum* from *T. heterophyllum*, and to join these very dissimilar species in one genus with the common *Scorodonia*. The most natural and distinctly characterised section is *Teucris*; and *Leucosceptrum*, *Teucropsis*, and *Pycnobotrys* would also, if taken together, form a well characterised, but by no means a natural genus, and none of these sections appear to agree with any marked distinctions in geographical distribution.

CONSPECTUS SPECIERUM.

SECT. I. LEUCOSCEPTRUM. *Verticillastri multiflori dense spicati. Corollæ laciniæ superiores truncatæ rectæ.*—*Frutex incanus.*

Species unica 1. *T. MACROSTACHYUM.*

SECT. II. TEUCROPSIS. *Verticillastri biflori, axillares, vel racemosi. Corollæ lacinia superiores truncatæ, rectæ. Ovarium villosissimum. — Frutices incani.*

Verticillastri axillares. Calycis dentes æquales . . . 2. T. HETEROPHYLLUM.

Verticillastri racemosi. Calycis dens supremus
latior, patens 3. T. BETONICUM.

SECT. III. TEUCRIS. *Pedunculi axillares vel racemosi, uniflori vel laxe pluriflori. Calyx rectus, æqualis. Corollæ lacinia superiores oblongæ, declinatæ. Achenia valde rugosa, glabra.*

Folia integerrima vel inferiora subdentata.

Pedunculi uniflori.

Racemi breves, pauciflori, vel flores axillares.

Folia ovata 4. T. FRUTICANS.

Folia oblongo-linearia 5. T. BREVIFOLIUM.

Racemi elongati stricti.

Calyces subsessiles 6. T. CRETICUM.

Pedicelli calycibus longiores 7. T. RACEMOSUM.

Pedunculi laxe pluriflori, corymbosi 8. T. LANCEOLATUM.

Folia inciso-dentata vel dissecta.

Pedunculi laxe pluriflori corymbosi vel cymosi
(nec racemosi).

Folia ovata inciso-dentata 9. T. CORYMBOSUM.

Folia basi cuneata profunde 3-5-fida, laciniis
lanceolato-linearibus 10. T. CAPENSE.

Pedunculi uniflori vel racemosi, pedicellis oppositis
unifloris.

Pedicelli folio florali multo longiores.

Planta subglabra 11. T. ORIENTALE.

Planta molliter pubescens vel tomentosa.

Folia profunde 2-3-ternatim secta, superiorum
segmentis linearibus 12. T. PARVIFLORUM.

Folia cuneiformia, apice inciso-dentata 13. T. OLIVERIANUM.

Pedicelli folio florali breviores.

Rami glabri vel vix pubescentes virides.

Folia minuta, remota, trifida 17. T. NUDICAULE.

Folia numerosa, alia oblonga integerrima,
alia pauci-lobata vel dentata 16. T. BICOLOR.

Folia multifida.

Planta procumbens vel repens (Europea) 14. T. CAMPANULATUM.

Planta adscendens vel erecta (Americana) 15. T. CUBENSE.

Rami cano-tomentosi 18. T. AFRICANUM.

Rami piloso-hispidi 19. T. PSEUDOCHAMÆPITHYS.

Species dubia 20. T. LACINIATUM.

SECT. IV. PYCNOBOTRYS. *Verticillastri pluriflori, spicati. Corollæ lacinia supremæ latæ, truncatæ, vix declinatæ, laterales minutæ, oblongæ, declinatæ. Ovarium glabrum.*

Frutex (Canariensis). Folia basi cordata 21. T. ABUTILOIDES.

Herbæ (Asiaticæ). Folia basi angustata vel rotundata.

Herba subglabra. Folia basi rotundata 23. T. JAPONICUM.

Herba pubescens vel villosa. Folia basi longe
angustata 22. T. WALLICHIANUM.

SECT. V. STACHYBOTRYS. *Verticillastri sexflori, dense spicati. Corollæ laciniae superiores oblongæ, declinatæ.*—*Herbæ.*

Calycis dentes superiores inferioribus parum latiores (Americanae.)

Calyx inflatus ore contracto 24. T. INFLATUM.

Calyx late campanulatus ore aperto 25. T. CANADENSE.

Calycis dens supremus latissimus (Europæe.)

Folia basi cordata.

Bracteæ sessiles subulatæ 26. T. HIRCANICUM.

Bracteæ oblongæ vel lanceolatæ petiolatæ 28. T. BRACTEATUM.

Folia basi rotundata 27. T. ARDUINI.

Species non satis nota 29. T. COMPACTUM.

SECT. VI. SCORODONIA. *Verticillastri biflori, secundi, racemosi, racemis sæpe paniculatis. Calycis dens supremus latior ovatus. Corollæ laciniae superiores oblongæ, declinatæ.*

Corollæ tubus dentes calycinos vix æquans.

Folia floralia (bracteæformia) lato-ovata, sæpius colorata, juniora imbricata.

Folia floralia oblonga, lanceolata, vel linearia 35. T. QUADRIFARIUM.

Calyces fructiferi globosi, dentibus conniventibus 31. T. STOLONIFERUM.

Calyces fructiferi campanulati, ore aperto.

Racemi breves, paniculato-ramosissimi 30. T. TOMENTOSUM.

Racemi simplices, vel parum ramosi.

Racemi densi. Folia floralia superiora

calyce longiora 36. T. ARGUTUM.

Racemi laxi. Folia floralia superiora

calyce breviora.

Folia ovata, acuminata, serrata 33. T. LAXUM.

Folia ovata, obtusa, crenata.

Herba, floribus purpureis 39. T. MASSILIENSE.

Suffrutex, floribus flavescentibus 38. T. PSEUDOSCORODONIA.

Folia lanceolata 40. T. LUSITANICUM.

Corollæ tubus exsertus.

Folia acuminata, serrata 34. T. ROYLEANUM.

Folia obtusa, crenata 31. T. SCORODONIA.

Species non satis notæ : 32. T. VISCIDUM ; 41. T. SALVIASTRUM.

SECT. VII. SCORDIUM. *Verticillastri 2-6-flori, axillares, distantes, foliis floralibus caulinis conformibus. Corollæ laciniae superiores oblongæ declinatæ.*

Folia dentata.

Corolla tubo torto resupinata. Annuæ.

Rami spinescentes 42. T. SPINOSUM.

Rami non spinescentes 43. T. RESUPINATUM.

Corolla recta. Perennes.

Folia basi cuneata, angustata vel rotundata 44. T. SCORDIUM.

Folia basi cordato-amplexicaulia 45. T. SCORDIODES.

Folia multifida, lobis oblongo-linearibus 46. T. BOTRYS.

SECT. VIII. CHAMÆDRYS. *Verticillastri 2-6-flori, in racemo laxo terminali dispositi, foliis floralibus superioribus vel omnibus bracteæformibus. Calycis dentes subæquales. Corollæ laciniae superiores oblongæ, declinatæ.*

Tota planta glaberrima, viridis 47. T. LUCIDUM.

Planta plus minusve (saltem calyx) pubescens, villosa vel incana.

Folia integerrima vel apice acute paucidentata.

Folia incana integerrima . . . 50. T. MARUM.

Folia vix incana apice paucidentata . . . 49. T. MULTIFLORUM.

Folia crenata vel inciso-dentata.

Herba perennis vel suffrutex basi procumbens, ramis floriferis adscendentibus . . . 48. T. CHAMÆDRYS.

Fruticuli erecti vel divaricato-ramosissimi.

Rami floriferi erecti, $\frac{1}{2}$ -1-pedales . . . 52. T. FLAVUM.

Fruticulus humilis, divaricato-ramosissimus . . . 51. T. MICROPHYLLUM.

Species non satis nota . . . 53. T. RAMOSISSIMUM.

Species 5 dubiæ.

SECT. IX. POLIUM. *Verticillastri pauci, in capitula terminalia condensati. Calycis dentes subæquales. Corollæ laciniae superiores declinatæ, lateralibus minoribus.*

Folia crenata.

Folia subrotunda vel late cuneata.

Folia utrinque et calyces dense tomentosa . . . 56. T. CUNEIFOLIUM.

Folia supra vel utrinque viridia vel hispida.

Folia plerumque semipollicaria.

Folia rotundata, utrinque viridia . . . 54. T. PYRENAICUM.

Folia obovato-cuneata, subtus canescentia . . . 55. T. BUXIFOLIUM.

Folia vix 3 lin. longa . . . 57. T. ALPESTRE.

Folia oblonga vel oblongo-lineararia.

Corolla parva, tubo incluso. Calyx dense tomentosus vel hispidus.

Folia omnia oblongo-ovata vel lineararia . . . 58. T. POLIUM.

Folia superiora late cuneata, minima . . . 57. T. ALPESTRE.

Corolla 4-5 lin. longa, tubo sæpius exserto.

Calyx leviter pubescens.

Folia parva vix crenata, basi angustata . . . 60. T. THYMIFOLIUM.

Folia profunde crenata, basi cordato-amplexicaulia . . . 59. T. AMPLEXICAULE.

Folia integerrima.

Corolla 4-5-linearis vel longior, tubo sæpius exserto. Calyx glaber vel vix pubescens.

Caules procumbentes elongati, ramis floriferis breviter adscendentibus . . . 61. T. MONTANUM.

Rami floriferi erecti, stricti. Folia superiora ultra semipollicaria . . . 62. T. PUMILUM.

Fruticulus cæspitosus, ramosissimus. Folia vix 3-4 lin. longa, sæpe crenulata . . . 60. T. THYMIFOLIUM.

Species non satis nota . . . 63. T. VERTICILLATUM.

Species 4 (Sectionis IX.) dubiæ.

Species 5 quoad sectionem dubiæ.

SECTIO I. LEUCOSCEPTRUM.

Leucosceptrum. *Sm. Exot. Bot.* 113.

Verticillastri multiflori, dense spicati. Calyx turbinatus, incurvus, dentibus subæqualibus. Corolla incurva, reflexa, laciniiis superioribus brevissimis latis truncatis erectis.—Frutex indica, cano-tomentosa.

1. T. MACROSTACHYUM (Wall. MSS.), fruticosum, ramis incanis, foliis oblongis subtus dense albo-tomentosis, verticillastris multifloris

dense spicatis, calycibus subæqualiter dentatis incurvis, corollæ laciniis supremis brevissimis erectis.

Leucosceptrum canum. Sm. ! *Exot. Bot.* 113. t. 116.

Clerodendron Leucosceptrum. Don. ! *Prod. Fl. Nepal.* 103.

Hab. in India orientali : in Napalia et Sillet *Wallich* ! (*h. s. sp. e Mus. Angl. Ind.*)

Frutex ramis subteretibus vel alternatim leviter complanatis, tomento candido dense vestitis. Folia ad summitates ramorum approximata, petiolata, 6-8-pollicaria, oblonga, utrinque angustata, supra glabriuscula, subtus dense tomentosa. Verticillastri dense spicati. Spicæ 3-6-pollicares, tomentosæ. Folia floralia bractæformia, ovato-rotundata, sessilia, calycibus breviora. Calyces dense tomentosi, incurvi, turbinati. Corolla calycem vix superans, extus tomentosa, dimidio minor quam in *T. canariense*, cæterum omnino conformis. Genitalia longe exserta, ad basin spicæ spectantia. Ovarium glabrum.

SECTIO II. TEUCROPSIS.

Teucropsis. *Ging. in Herb. DC. MS.*

Verticillastri biflori, axillares vel in racemos terminales dispositi. Calyx campanulatus, declinatus, dente supremo latiore patente. Corolla extus tomentosa, laciniis superioribus brevissimis latis truncatis erectis vel vix declinatis.—Frutices Canarienses incani.

The *T. heterophyllum* of this section is intermediate between *Leucosceptrum*, *Teucris*, and *Stachyobotrys*; the *T. betonicum* between the two former and *Scorodonia*.

2. *T. HETEROPHYLLUM* (L'hér. *Stirp.* 1. 84), fruticosum, ramis incanis, foliis ovato-ellipticis subtus vel utrinque incanis, floralibus conformibus, verticillastris bifloris axillaribus remotis, calycis recti dentibus æqualibus, corollæ laciniis superioribus brevissimis erectis, ovario villosissimo.

T. canariense. *Lam. Dict.* 2. 692.

Hab. in ins. Canariensibus *Broussonet* ! (*h. s. sp. comm. a cl. Requier.*)

Frutex suborgyalis, ramosa. Rami juniores cano-tomentosi. Folia petiolata, 1-2-pollicaria, ovato-elliptica, obtusa, integerrima vel versus apicem crenata, basi rotundata vel cuneata, utrinque cano-tomentosa vel lanata, supra viridiora; floralia floribus multo longiora. Verticillastri pauci, 2-4-flori. Calyces breviter pedicellati, subnutantes, recti. Corolla calyce duplo longior, extus tomentosa, atropurpurea. Genitalia longe exserta, incurva. Achenia uti ovarium villosissima.

3. *T. BETONICUM* (L'hér. *Stirp.* 1. 83. t. 49), fruticosum, ramis cano-tomentosis, foliis ovato-oblongis subtus vel utrinque incanis, verticillastris bifloris secundis laxè racemosis, foliis floralibus bractæformibus, calycis declinati dente supremo maximo, corollæ laciniis superioribus brevissimis, supremis latis erectis, lateralibus subdeclinatis tomentosius, acheniis villosissimis.

T. betonica. *Bot. Mag.* 28. t. 1114.

T. betonicæfolium. *Jacq. Coll.* 1. 145. t. 17. f. 2.

T. canescens. Forst. Comm. Gott. 9. 58. (ex Willd.)

T. maderense. Lam. Dict. 2. 692.

Scorodonia betonicaefolia. Link. Handb. 458.

Hab. in ins. Madera rupibus *Masson! Lowe! &c.* (h. s. c. et v. s. sp.)

Frutex 2-3-pedalis, ramosus, ramis junioribus cano-tomentosis. Folia 1-1½-pollicaria, longiuscule petiolata, ovato-oblonga, crenata, basi integerrima, cuneata vel rotundata; floralia (infimis exceptis) bractæformia, lanceolata, integerrima, incana, calyce breviora. Racemi laxi, 3-6-pollicares. Flores pedunculati, purpurascens. Calyces campanulati, dente supremo lato-ovato obtusiusculo, inferioribus breviter mucronatis. Corollæ tubus subexsertus, extus pubescens; faux inflata incurva; limbi lobi superiores labium superius obsoletum formantes, laterales parvi, oblongi, vix declinati, infimus oblongus concavus. Genitalia longiuscule exserta. Ovarium pilosissimum.

This species has the calyx of the section *Scorodonia*, the corolla intermediate between that of *Leucosceptrum* and *Stachyobotrys*; in habit it is allied to both *Leucosceptrum* and *Teucris*, but very little to *Scorodonia*.

SECTIO III. TEUCRIS.

Teucris. Ging. in Herb. DC. MS.

Pedunculi axillares, oppositi, uniflori vel laxe cymosi pluriflori. Calyx campanulatus, erectus, æqualis, 5-dentatus vel 5-fidus. Corollæ laciniæ 4 superiores oblongæ, declinatæ, infima oblonga, concava. Achenia reticulato-rugosa, glabra, vel rarius villosissima. — Herbæ suffrutices fruticesve, foliis integerrimis incisive rarissime crenatis.

This section is connected through *T. fruticans* with *Teucropsis*, through *T. corymbosum* with the genus *Amethystea*, and through *T. pseudochamæpithys* with the section *Chamæpithys* of *Ajuga*.

4. *T. FRUTICANS* (Linn. ! Spec. 787), fruticosum, foliis ovatis integerrimis planis subtus albo-tomentosis, pedunculis unifloris, calyce tomentoso campanulato æquali, dentibus ovatis obtusis.

T. latifolium. Linn. Spec. 788. Bot. Mag. 7. t. 245.

T. fruticans. Sibth. et Sm. ! Fl. Gr. 6. 23. t. 527. Dill. Hort. Elth. t. 284.

T. tomentosum. Mærch. Meth. 382.

Hab. in Europa et Africa Mediterranea occidentali: in Barbaria a Tanger *Salzmann!* ad Algeriam *Broussonet!* in Hispania, a Cadix *Picard!* ad Bagnols apud Caput Cerbere Galliæ confine! in Italia a Genua *Requien!* ad Casaliccio et Fondi regni Neapolitani *Tenore*, in Sicilia *Sibthorp!* Corsica *De Candolle*, in ins. Melita abundat *Durville!* (h. s. sp.)

Frutex 2-3-pedalis, divaricato-ramosus. Folia brevissime petiolata, obtusa, basi rotundata vel angustata, supra glabra, viridia vel juniora laxissime subarachnoideo-tomentosa, tomento subtus candido vel interdum rufescente; floralia conformia, minora. Racemi terminales vel in ramulis brevibus laterales, pauciflori. Pedunculi calyce breviores. Calyces 4-5 lin. longi, laciniis ultra medium attingentibus latis foliaceis. Corolla cœrulea cum labio calyce duplo longior. Genitalia labium æquantia.

In exemplaribus Melitensibus Italianisque folia plerumque angustiora, nec subtus rufescunt, sed non aliter distinguuntur.

5. *T. BREVIFOLIUM* (Schreb. *Unilab.* 27), fruticosum, foliis oblongis integerrimis margine revolutis utrinque canescentibus, racemis brevibus, pedunculis unifloris, calyce tomentoso campanulato æquali semiquinquefido.

T. brevifolium. *Sm. et Sibth! Fl. Gr.* 6. 24. t. 528.

T. creticum. *Lam. Dict.* 2. 692. non *L.*

Hab. in Cretæ maritimis *Sieber! Sibthorp!* in ins. Meli et Astypalææ saxosis *Durville!* (*h. s. sp. comm. a cl. Requier et Endlicher.*)

Fruticulus divaricato-ramosissimus, ramulis brevibus foliosis. Folia vix semipollicaria, obtusa, sessilia, utrinque pubescentia brevi subsericea canescentia; floralia conformia. Racemi vix 6-8-flori. Pedunculi calyce parum breviores. Calyx minor quam in *T. cretico.* Corollæ purpurascens *T. cretici.*

6. *T. CRETICUM* (Linn.! *Spec.* 788), fruticosum, foliis oblongo-linearibus integerrimis margine revolutis subtus albo-tomentosis supra demum glabris, racemo elongato stricto, floribus subsessilibus solitariis ternisve, calycis albo-tomentosi campanulati dentibus acutis.

T. creticum. *Sm. et Sibth. Fl. Gr.* 6. 25. t. 529.

T. hyssopifolium. *Schreb. Unilab.* 28.

T. rosmarinifolium. *Lam. Dict.* 2. 693.

T. charamoniense. *Cav.! Descr.* 1. 82.

Hab. in regione Mediterranea orientali: in ins. Cypro *Sibthorp!* in saxosis ins. Meli et Astypalææ *Durville!* in Palestina *Sieber!* et in Ægypto *Hasselquist (Linnæus).* (*h. s. sp. comm. a cl. De Candolle.*)

Folia ad basin ramorum approximata, fere *Rosmarini officinalis*, floralia subconformia at parva, vix calyces æquantia. Rami floriferi pedales, adscendentes vel erecti, foliis sub racemo remotis. Verticillastri sæpissime 2-flori, inferiores remoti interdum sexflori, supremi approximati. Calyx 3 lin. longus, dentibus latis ad medium non attingentibus. Corolla rubro-purpurea (cum labio) calyce duplo longior. Genitalia labio parum breviora.

7. *T. RACEMOSUM* (Br.! *Prod.* 504), caule herbaceo stricto ramoso, foliis parvis oblongis inferioribus subdentatis superioribus integerrimis omnibus supra glabratis subtus albo-tomentosis, racemis elongatis strictis, pedunculis unifloris, calyce tomentoso-campanulato æquali.

Hab. in Nova Hollandia: ad oram meridionalem *R. Brown!* in uliginosis ad flumen Lachlan *A. Cunningham!* (*v. s. sp. in herb. Endlicher, Delessert, Hooker, &c.*)

Caules erecti, ramis rigidis virgatis acute tetragonis canescentibus. Folia vix semipollicaria, plerumque multo minora, inferiora dentibus utrinque 1-2 instructa; floralia minuta. Pedunculi breves, crassiusculi, incani. Calyx 2-linearis, incanus, subnervius, dentibus latis tubo brevioribus. Corolla extus pubescens, labio vix calyce duplo longiore. Genitalia labio breviora.

8. *T. LANCEOLATUM*, herbaceum? foliis lanceolatis basi angustatis inferioribus subdentatis superioribus integerrimis omnibus subtus subcanescenti-pubescentibus, cymis axillaribus pedunculatis corymbosis, calycis pubescentis campanulati dentibus lanceolatis acutis æqualibus.

Hab. in Nova Hollandia prope Bathurst *Herb. Hooker!* (*v. s. sp. in Herb. Hooker.*)

Rami adscendentes, acute tetragoni, pubescentes. Folia 1-1½-pollicaria, acuta,

inferiora versus apicem dentibus utrinque 2-3 notata, basi in petiolum brevem angustata. Cymæ laxæ, paucifloræ, folio longiores, tomentosæ, pedunculo communi subpollicare, ramis pedicellisque semipollicaribus. Bracteæ parvæ, lineares. Corolla extus pubescens, calyce duplo longior; lobis oblongis subæqualibus. Stamina duplo longiora.

9. *T. CORYMBOSUM* (Br.! Prod. 504), herbaceum? tenuiter pubescens, foliis ovatis dentatis incisive utrinque viridibus, cymis axillaribus pedunculatis corymbosis, calycis glabriusculi campanulati dentibus lanceolatis acutis.

Scoparia australis. Sieb.! *Pl. Nov. Holl. exs. n.* 184. *Schult. Syst. Veg. Mant.* 3. 66.

Anisomeles australis. Spreng. *Syst. Cur. Post.* 226.

Hab. in Nova Hollandia: in saxosis prope Portum Jackson *R. Brown!* Sieber! *A. Cunningham!* in Terra Van Diemen *Gunn!* (*h. s. sp. comm. a cl. Lindley.*)

Caulis erectus, parum ramosus, 1-2-pedalis. Folia distantia, inferiora pollicaria, superiora minora; floralia inferiora conformia, suprema minuta subintegerrima, omnia supra tenuissime pubescentia, subtus tomentoso-pubescentia, venosa. Cymæ 5-7-floræ, pedunculis ramis pedicellisque gracilibus. Bracteæ minutæ. Calyx vix 2 lin. longus. Corolla (cum labio inferiore) duplo, genitalia triplo longiora.

10. *T. CAPENSE* (Thunb. Prod. Fl. Cap. 95?), herbaceum, tenuiter pubescens, foliis basi cuneatis 3-5-fidis, laciniis lanceolato-linearibus integerrimis 3-5-fidisve utrinque viridibus vel subtus canescentibus, cymis axillaribus pedunculatis corymbosis, calycibus glabris campanulatis æqualibus profunde 5-fidis, laciniis lanceolatis acutis.

Ajuga capensis. Pers. *Syn.* 2. 109.

Hab. ad Caput Bonæ Spei *Masson!* &c. (*v. s. sp. in herb. Banks, Hooker, &c.*)

Herba adscendens? 1-3-pedalis, parum ramosa. Foliorum laciniae paucae, elongatae, margine subrevolutae, supra tenuissime pubescentes virides, subtus tenuiter cano-tomentosae. Cymæ folia floralia æquantes, vel superiores longiores. Pedunculi subsecundi filiformes, 3-5-flori. Pedicelli calyce longiores. Bracteæ minutæ. Corolla vix calyce longior. Stamina calyce dimidio longiora.

11. *T. ORIENTALE* (Linn.! Spec. 786), herbaceum, erectum, subglabrum, foliis bipinnatisectis segmentis linearibus integerrimis incisive utrinque viridibus, pedunculis laxè racemosis, pedicellis folio florali multo longioribus, racemis paniculatis, calycis glabri campanulati dentibus lanceolatis æqualibus acutis.

T. orientale. Bot. Mag. 31. t. 1279.

Hab. in Asia minore et Caucaso: in Media ad rivulos in solo glareoso *Buxbaum*, in Armenia *Tournefort*, inter Kermancha et Armadan *Olivier!* in Iberia circa Tiflin *Steven!* *Bieberstein, &c.*, versus fluvium Anticetam ad torrentem Terek, necnon in montibus Talüsch *C. A. Meyer.* (*h. s. sp. comm. a cl. Prescott et Klustine.*)

Herba erecta, pedalis, basi ramosa, nunc glabra viridis, nunc leviter pubescens vel canescens. Folia infima 1½-2-pollicaria, circumscriptione lato-ovata, laciniis profundis angustis inter se distantibus, superiora minora; floralia minuta. Panicula

laxa, terminalis. Ramuli basi nudi, apice florum paria 3-4 ferunt foliis floralibus minutis, et ideo pedunculos multifloros specierum præcedentium simulant. Pedunculi revera uniflori, oppositi, calyce vix duplo longiores. Calycis dentes breves, acuminati. Corolla glabra, cærulea, laciniis supremis lanceolatis acutis, lateralibus latioribus, infima maxima. Genitalia labio longiora.

12. *T. PARVIFLORUM* (Schreb. Unilab. 31. ic.), herbaceum, molliter tomentosum, foliis profunde bi-tri-ternatimsectis, segmentis inferiorum latis obtusis superiorum linearibus, pedunculis folio florali multo longioribus divaricatis unifloris, racemis paniculatis, calycibus molliter tomentosis campanulatis æqualibus semiquinquefidis.

Hab. in Armenia *Tournefort* ! in Oriente *Olivier* ! in Syria prope Aleppo *Russell* ! (v. s. sp. in herb. DC., Banks, et Lambert.)

Caulis 1-3-pedalis, erectus, apice trichotome ramosissimus, uti folia et calyces pilis minutis canescentibus molliter tomentosus. Folia floralia minuta. Pedicelli elongati, divaricati. Flores numerosissimi, parvi. Corolla calyce vix longior, cærulea.

13. *T. OLIVERIANUM* (Ging. ! in herb. DC. MSS.) herbaceum, molliter pubescens, foliis cuneiformibus apice inciso-dentatis 3-5-fidisve, pedunculis folio florali multo longioribus divaricatis unifloris, calycibus villosis campanulatis æqualibus profunde quinquefidis.

Hab. in Arabia inter Aleppo et Bagdad *Olivier* ! (h. s. sp. comm. a cl. *Moretti*.)

Caulis vix pedalis, erectus, ramis paucis, floriferis divaricatis, uti folia tomento molli canescens. Folia infima petiolata, sesquipollicaria, superiora multo minora, subsessilia; floralia minuta. Pedicelli crassiusculi, elongati, horizontales, apice adscendentes. Flores in panicula pauciflora dispositi. Calyx fere 3 lin. longus; laciniis anguste lanceolatis acutis. Corollæ tubus brevis; labium calyce triplo longius, glabrum; laciniæ 4 superiores elongatæ, acutæ, infima obovata. Achenia pilis longis villosissima.

14. *T. CAMPANULATUM* (Linn. ! Spec. 786), herbaceum, procumbens, glabrum, foliis subbipinnatifidis, segmentis lineari-cuneatis integerrimis incisive divaricatis utrinque glabris, calycibus solitariis subsessilibus folio brevioribus campanulatis æqualibus glabris.

T. diversiflorum. *Mærch. ex Steud. Nom. Bot.* 828.

Hab. in regione Mediterranea occidentali: in Hispania *Pavon* ! &c., ins. Balearicis *Cambessèdes* ! Sicilia *Gussone*, et regno Neapolitano *Tenore*. (h. s. sp.)

Caules basi prostrati, ramosi, ramis breviter adscendentibus. Folia circumscriptione lato-ovata vel rhomboidea, breviter petiolata; floralia minora minus incisa, flores superantia. Calyces fructiferi sæpius reflexi; dentes breves, lati, subulato-acuminati. Corolla cærulea, tubo laciniisque supremis calyce brevioribus, infima lata calyce duplo longiore. Stamina lacinia infima corollæ breviora.

15. *T. CUBENSE* (Linn. Mant. 80), herbaceum, glabrum, foliis inferioribus ovato-cuneatis obtusis inciso-dentatis superioribus inciso-trifidis pinnatisectisve, laciniis lanceolatis linearibusve planis utrinque viridibus, pedunculis axillaribus unifloris folio florali brevioribus, calycibus campanulatis æqualibus glabris profunde quinquefidis, staminibus calyce vix duplo longioribus.

T. cubense. Jacq. ! *Stirp. Amer.* 172. t. 183. f. 74. *Obs.* 2. 5. t. 30.

T. lævigatum. Vahl. *Symb.* 1. 40.

T. chamædrifolium. Mill. ! *Dict. n.* 16.

Hab. in America æquinoctiali et australiore : in Mexico prope Papantlam *Schiede et Deppe* ! ad Tampico, Vera Cruz, Matamoras, et lacum Sancti Nicolai *Berlandier* ! in provincia Texas *Drummond* ! in ins. Cuba *Houston* ! *Ferrers* ! &c., ins. Bahama *Herb. Hooker* ! in Brasilia meridionali *Sello* ! ad Buenos Ayres, Mendoza, et Cordova *Gillies* ! (*h. s. sp.*)

Herba circiter pedalis, adscendens vel erecta, ramosa, dense foliosa. Folia inferiora lata, vix ad medium incisa, laciniis obtusis latis, superiora præsertim floralia fere ut in *T. campanulato* incisa, laciniis obtusis acutisve, suprema vix flores æquantia vel iis breviora. Racemi terminales, subsecundi. Pedunculi calyces æquantes vel breviores. Calyces 2½-3 lin. longi, virides, laciniis lanceolatis acutis. Corolla cærulea, extus glabra vel leviter pubescens, vix cum labio inferiore calyce duplo longior.

In exemplaribus Bonariensibus, folia plerumque magis dissecta sunt quam in Mexicanis vel Havanensibus, at non aliter differunt ; et etiam hoc caractere in utraque regione quam maxime variant.

16. *T. BICOLOR* (Sm. ! in Rees. *Cycl.*), herbaceum, glabrum, foliis ovatis oblongis lanceolatisve obtusis integerrimis vel incisis utrinque viridibus, pedunculis axillaribus unifloris folio florali brevioribus, calycibus campanulatis æqualibus glabris semiquinquefidis, staminibus calyce subtriplo longioribus.

T. heterophyllum. Cav. ! *Ic.* 6. 56. t. 577.

T. orchideum. Lindl. ! *Bot. Reg.* 15. t. 1255.

Hab. in Chili montibus *Macrae* ! *Bridges* ! *Cuming* ! *Bertero* ! *Gillies* ! &c., et in Pampas de Santa Fé *Gillies* ! (*h. s. sp.*)

Rami 1-2-pedales, acute tetragoni. Folia sæpius oblonga vel lanceolata, sub-pollicaria, integerrima, vel laciniis paucis incisa, interdum fere ovata, trifida, juniora sæpe linearia, integerrima vel trifida ; floralia sæpius flores superantia. Pedunculi breves, superiores subracemosi. Calyx 4 lin. longus, viridis, late campanulatus ; laciniis lato-lanceolatis acutis. Corolla cærulea, tubo incluso.

17. *T. NUDICAULE* (Hook. ! *Bot. Misc.* 2. 235), herbaceum ? glabrum vel tenuiter pubescens, ramis virgatis subnudis, foliis parvis remotis trifidis segmentis linearibus obtusis utrinque viridibus, floribus brevissime pedunculatis solitariis spicato-racemosis, calycibus campanulatis æqualibus semiquinquefidis corollisque pubescenti-hirtis.

Hab. in Peruvix valle Canta ? *Cruikshanks* ! (*v. s. sp. in Herb. Hooker.*)

Rami in exemplaribus suppetentibus sesquipedales, parum ramosi, veteres defoliati, internodiis elongatis, ramuli juniores foliis vix 2-3-linearibus donati. Flores pauci versus apices ramorum approximati, magnitudine florum *T. bicoloris* cui hæc species affinis est. Pedicelli breves. Calyces late campanulati, dentibus brevibus, latis, acutis. Corolla fere *T. bicoloris* at villosior, lacinia infima minore.

18. *T. AFRICANUM* (Thunb. *Prod. Fl. Cap.* 95 ?), suffruticosum, ramis erectis tomentoso-pubescentibus, foliis profunde 3-fidis laciniis linearibus integerrimis vel rarius trifidis margine revolutis subtus canescenti-tomentosis, pedunculis axillaribus solitariis unifloris vel inferioribus subcymosis folio florali subbrevioribus, calycibus campanulatis æqualibus subcanescentibus profunde quinquefidis.

February 1835.

4 s

T. trifidum. Retz Obs. 1. 21. ?*
Ajuga africana. Pers. Syn. 2. 109.

Hab. ad Caput Bonæ Spei *Masson!* &c. (v. s. sp. in herb. Banks et Hooker.)

Caules e basi lignosa complures, erecti, parum ramosi, semipedales vel parum elatiores, dense foliosi, acute tetragoni, uti folia et calyces tomento tenui canescentes. Folia dimidio minora quam in *T. pseudochamæpithyo*; juniora (ramis brevissimis) in axillis fasciculata; floralia conformia, calyces plerumque superantia. Racemus multiflorus. Flores dimidio minores quam in *T. pseudochamæpithyo* cæterum conformes. Pedunculi inferiores sæpe in ramulos breves, 3-5-floros, foliatis abeunt, et idcirco hanc speciem esse *T. trifidum* Retzii suspicor.

19. *T. PSEUDOCHAMÆPITHYS* (Linn. ! Sp. 787), suffruticosum, ramis erectis piloso-hirtis, foliis profunde 3-5-fidis laciniis linearibus integerrimis trifidisve margine revolutis supra hispidulis subtus tenuissime pubescentibus, pedunculis axillaribus solitariis unifloris folio florali demum sublongioribus, calycibus campanulatis æqualibus pubescentibus profunde quinquefidis.

β *multifidum*, foliis angustioribus inferioribus bistrifidis multifidisve.

T. mauritanum. Linn. Spec. 787.
T. nissolianum. Linn. ! Spec. 786.†

Hab. in Europæ et Africæ regione Mediterranea: in Hispania a Cadix *Picard!* *Clemente!* et Malaga *Salzmann!* ad Valentiam *L. Dufour!* et Barcinonem? in Barbaria prope Algeriam *Broussonet!* *Desfontaines*, in Gallia australi prope Massiliam *Requien!* in Syria prope Aleppo *Russell!* (h. s. sp.)

Rami e basi lignosa plures, semipedales pedalesve, subsimplices, uti pedunculi et folia inferiora pilis longis mollibus patentibus hirti. Folia latitudine variabilia, at constanter linearia, petiolo laciniisque in toto longitudine æquilatis, viridia, inferiora sæpius bis, superiora simpliciter, trifida; floralia sessilia, pariter trifida, inferiora calyces æquantia, suprema minuta. Racemus terminalis, laxis, subsecundus. Pedunculi calyce nunc longiores, nunc breviores. Calyx 4-5 lin. longus, viridis; laciniis e basi lanceolata subulato-aristatis. Corollæ laciniæ superiores dentes calycinos dimidio, infimæ triplo, superantes.

Species Sectionis III. dubia.

20. *T. LACINIATUM* (Torrey Pl. Rock. Mount. in Ann. Lyc. Nat. Hist. 2. 231).

* "T. foliis lanceolatis, trifidis, pedunculis axillaribus trifloris."—Retz l. c. ex Willd. Sp. 3. 15.

"T. caule quadrangulati incano, hispido, foliis oppositis, trifidis, hispidis, pedunculis axillaribus trifloris."—Wendl. Obs. 50. ex Willd. l. c.

"Folia trifida, superne hispido-scabra, subtus tenuissime tomentosa. Laciniæ foliorum superiorum lineares integerrimæ, inferiorum lanceolatae, uno alterove dente donatae. Pedunculi axillares, triflori."—Willd. l. c.

An omnes ad eandem speciem spectant?

† The specimen thus marked in the Linnæan herbarium is certainly the *T. pseudochamæpithys*, and agrees with the Linnæan phrase, excepting that Linnæus marks it as annual. This is probably a clerical or typographical error.

Hab. in Americæ borealis Rocky Mountains *Torrey*.

"*T. fruticosum*, foliis pinnato-5-partitis summis 3-partitis laciniis linearibus, floribus axillaribus solitariis pedicellatis, pedicellis folio multo brevioribus.

"Caulis lignosus, ramosus, glaber. Folia inferiora sessilia, laciniis obtusiusculis fere glabris punctatis, superiora basi cuneata. Flores proportionē plantæ magnæ. Pedicelli 2 lin. longi. Calyx subcampanulatus, 5-partitus, glaber, segmentis lanceolatis acutis, infimo bifido vel 3-dentato. Corolla violacea? extus villosa, segmenta labii inferioris ovata, acuta. Stamina exserta. Antheræ subrotundæ.—Exemplar 4-pollicare."—*Torrey l. c.*

Ex hac descriptione, a *T. cubense* non discrepat nisi caule fruticoso (in *T. cubense* perenni), et calycis dente infimo bifido vel tridentato. Annon ad *T. cubense* referendum?

SECTIO IV. PYCNOBOTRYS.

Verticillastri 4-multiflori, in spicam simplicem vel ramosam condensati. Calyx inflato-vel tubuloso-campanulatus, declinatus, dentibus subæqualibus vel supremis latioribus. Corollæ laciniæ supremæ brevissimæ, latæ, truncatæ, vix declinatæ, laterales parvæ, oblongæ, declinatæ, infima lata, concava. Achenia rugosa, glabra.—Herbæ vel frutices villosæ vel glabræ, nec incanæ.

This section is intermediate between *Teucropsis* and *Stachyobotrys*.

21. *T. ABUTILOIDES* (L'hér. Stirp. 1. 84), fruticosum, ramis pubescentibus, foliis amplis cordiformibus utrinque viridibus villosis, racemis simplicibus paniculato-ramosis, verticillastris 2-6-floris, calycibus declinatis hirsutis, dentibus ovatis obtusis supremo parum latiore.

T. macrophyllum. *Lam. Dict.* 2. 692.

Hab. in ins. Madera septentrionali rarissime *Masson! Lowe! &c.* (*h. s. c. et v. s. sp. in Herb. Hooker, Banks, &c.*)

Frutex 3-4-pedalis. Folia fere *Sidæ* mollia, longiuscule petiolata, 3-6-pollicaria, in toto ambitu crenata. Racemi densi, 2-3-pollicares, axillares, simplices vel ad apices ramorum plures paniculati. Folia floralia parva, decidua. Calyx parvus, pedicellatus, fructifer inflato-subglobosus, pubescens, submembranaceus, rubescens, dentibus omnibus brevibus latis vix inæqualibus. Corolla semipollicaris, rubra, tubo longe exserto amplo; limbi laciniis superioribus truncatis, lateralibus parvis, oblongis, infimo amplo concavo. Genitalia longe exserta.

22. *T. WALLICHIANUM* (Benth. in Wall. Pl. As. Rar. 2. 19), herbaceum, adscendens, foliis elliptico-ovatis acuminatis basi longe angustatis utrinque viridibus, racemo simplici, verticillastris multifloris, calycibus declinatis, dentibus vix inæqualibus.

Hab. in Indiæ orientalis provincia Sillet *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caulis basi radicans, simplex, pedalis vel parum altior, rufo-villosus. Folia 3-4-pollicaria, utrinque pilis sparsis rigidis hispidula, serrato-crenata, basi integerima. Spica 2-3-pollicaris, densa. Folia floralia infima petiolata, oblonga, floribus longiora, superiora et bractæ minuta, lanceolata. Verticillastri sub-10-flori. Calyces pedicellati, basi attenuati, hispidi, ore parum obliquo, dentibus brevibus.

23. *T. JAPONICUM* (Willd. Sp. Pl. 3. 23), herbaceum, erectum vel adscendens, subglabrum, foliis ovatis oblongis lanceolatisve basi rotun-

datis utrinque viridibus, racemo ramoso, verticillastris æqualibus sexfloris, foliis floralibus lanceolatis, calycibus declinatis tubuloso-campanulatis glabris, dentibus lanceolatis acutis subæqualibus.

T. virginicum. Thunb. *Fl. Jap.* 244.

Hab. in Japoniæ montibus Thunberg. (*v. s. sp. in herb. Delessert.*)

Caulis ramosus, obtuse tetragonus, glaberrimus vel angulis pubescentibus. Folia breviter petiolata, acuta, profunde et argute serrata, subtus pallida; floralia bractæformia, ciliata. Verticillastri laxiusculi. Calyces glabri, virides, dentibus subpatentibus tubo brevioribus. Corolla tubo incluso calyce duplo longior. Genitalia labio inferiori subæqualia.

SECTIO V. STACHYOBOTRYS.

Verticillastri 6-multiflori, in spicam simplicem teretem terminalem dispositi. Calyx campanulatus, declinatus, dentibus superioribus præsertim supremo latioribus, rarius subæqualibus. Corollæ laciniae superiores oblongæ, declinatæ, infima oblonga, concava. Achenia valde reticulato-rugosa, glabra.—Herbæ perennes, adscendentes vel erectæ, parum ramosæ.

24. *T. INFLATUM* (Swartz. ! *Prod. Fl. Ind. Occ.* 88), herbaceum, erectum, pubescens vel villosum, foliis ovatis vel ovato-lanceolatis basi rotundato-truncatis vel subcordatis subtus subcanescentibus, racemo subsimplici, verticillastris æqualibus sexfloris, bracteis lanceolatis, calycibus declinatis inflatis pubescentibus villosisve, ore contracto dente supremo latiore.

T. villosum. Forst. ! *Prod.*

T. palustre. Humb. et Kunth. ! *Nov. Gen. et Sp. Amer.* 2. 306.

T. vesicarium. Mill. ! *Steud. Nom. Bot.* 830.

Hab. in America æquinoctiali et australi, in Mexico prope Tampico Berlandier ! in ins. Jamaica Swartz ! &c. ad Tongatabou Forster ! prope Carthagera de Indias Humboldt et Bonpland ! in Brasiliæ arenosis provinciæ Rio Janeiro A. de St. Hilaire ! Macrae ! &c., et ad Itapocoroia provinciæ Sanctæ Catherinæ A. de St. Hilaire ! prope Buenos Ayres Tweedie ! (*v. s. sp.*)

Habitu *T. canadensi* simillimum, et uti hæc species variat superficie nunc tenuiter pubescente subcanescente, nunc pilis longis mollibus villosa. Differt caulibus sæpius ramosis, foliis interdum basi subcordatis, et præsertim calycibus vesiculoso-inflatis apice contractis, dentibus brevioribus sæpe obtusis. Achenia *T. canadensis*.

25. *T. CANADENSE* (Linn. ! *Spec.* 789), herbaceum, erectum, canescens vel villosum, foliis ovato-lanceolatis basi rotundatis subtus subcanescentibus, racemo simplici, verticillastris æqualibus sexfloris, bracteis subulatis, calycibus declinatis campanulatis incanis subvillosis, dentibus superioribus latioribus.

T. virginicum. Linn. *Spec.* 789.

T. speciosum. Hill. *Syst. Veg.* 14. t. 14 ?

Hab. in America boreali a Canada ! ad Carolinam Michaux, Pursh,

Ohio *Drummond!* et in Provincia Texas Mexicanorum *Drummond!*
(*h. s. sp.*)

Caulis 1-3-pedalis, simplex vel vix ramosus, uti foliorum pagina inferior et calyces nunc pubescentia brevi tenui canescens nunc molliter cano-villosus, rarius subglaber. Folia breviter petiolata, 2-3-pollicaria, serrata, supra hispidula, rarius glabra; floralia uti bracteæ sessilia, lanceolata, vix calycem superantia. Spica 2-6-pollicaris, laxiuscula. Calyces breviter pedicellati, basi obliqui, dentibus brevibus, 3 superioribus ovatis, supremo latiore, 2 inferioribus lanceolatis. Corolla purpurascens, labio elongato, laciniis valde declinatis. Achenia valde rugosa, pericarpio crasso sublignoso.

26. *T. HIRCANICUM* (Linn.! Spec. 789), herbaceum, erectum, pubescens, foliis ovatis cordatis subtus subcanescentibus, racemo simplici, verticillastris æqualibus sexfloris, bracteis subulatis calyce subbrevioribus, calycibus declinatis bilabiatis dente supremo latissimo.

T. hircanicum. *Bot. Mag.* 45. t. 2013.

Scorodonia spicata. *Mæench. Meth.* 385.

Hab. in Caucasi orientalis, necnon in Iberiæ pratis sylvaticis et ad sepes *Bieberstein*, frequens in nemoribus et dumetis montium *Talüsch C. A. Meyer.* (*h. s. c.*)

Caules 1-2-pedales, parum ramosi, molliter pubescentes. Folia petiolata, 1-3-pollicaria, grosse crenata, obtusa, basi profunde cordata, supra vix pubescentia, subtus molliter pubescentia, sæpius canescentia, rarius glabrata, superiora minora; floralia (intra spicam) uti bracteæ subulatæ calyces æquantes. Spica 3-8-pollicaris, densa. Pedicelli breves, erecti, villosi. Calyx fere *Ocymi* dente supremo lato-ovato, submembranaceo, lateralibus brevibus obtusiusculis, infimis lanceolato-subulatis adscendentibus. Corolla purpurea, extus villosa. Achenia parva, globosa, pericarpio tenui.

27. *T. ARDUINI* (Linn.! Mant. 81), herbaceum, erectum, molliter villosum, foliis ovatis basi rotundatis utrinque subviridibus, racemo simplici, verticillastris æqualibus sexfloris, bracteis sessilibus lanceolatis acuminatis calyces superantibus, calycibus bilabiatis dente supremo latissimo.

T. Arduini. *Sm. et Sibth.!* *Fl. Gr.* 6. 26. t. 531.

T. lamiifolium. *Durv.!* *Pl. Archip. in Mem. Soc. Linn. Par.* 1. 320.

Scutellaria cretica. *Linn.!* *Spec.* 836.

Scorodonia Arduini. *Reichb. Fl. Germ. Exc.* 315.

Hab. in Europa austro-orientali in saxosis prope Duaro Dalmatiæ *Biasoletto!* in Bulgariæ montibus *Ineada Durville!* in Olympi Bithyni sylvis umbrosis *Sibthorp!* (*v. s. sp. ex Union. Itin. Wurtemb.*)

Caules adscendentes, pedales, parum ramosi, uti folia pilis mollibus villosi. Folia subsessilia vel infima breviter petiolata, 1-2-pollicaria, serrato-crenata. Spica densa, 2-4-pollicaris, villosissima. Pedicelli breves, erecti. Calycis dens supremus maximus, ovatus, acutus, laterales brevissimi, lati infimi, lanceolati, acuminati, supremum subæquantes. Corolla alba, extus villosa.

28. *T. BRACTEATUM* (Desf. *Fl. Atl.* 2. 7. t. 120?*), herbaceum, adscendens, villosum, foliis ovatis basi cordatis utrinque viridibus, racemo simplici, verticillastris æqualibus sexfloris, bracteis petiolatis ovatis

* In icone Desfontainesii verticillastri remoti, in exemplaribus omnibus a me observatis approximati sunt. An species eadem?

lanceolatisve calyces æquantibus, calycibus bilabiatis dente supremo latissimo.

Hab. in Africæ borealis collibus incultis prope Tanger *Salzmann!* *Tariffa Durand!* Mascar et Tlemsen *Desfontaines.* (*h. s. sp. a cl. Salzmann lectum.*)

Herba semipedalis, dura, subramosa, in omni parte pilis longis mollibus villosa. Folia semi-uni-pollicaria, obtuse crenata, petiolata approximata. Racemus (vel spica laxa) 2-4-pollicaris. Calyces pedicellati basi obliqui, labio superiore tridentato, dentibus ovatis acutis, intermedio maximo, inferiore bifido, laciniis lanceolatis acutissimis. Corollæ extus pubescentes. Achenia parva, globosa.

Species Sectionis V. non satis nota.

29. *T. COMPACTUM* (Lag. Nov. Gen. et Sp. 17.)

Hab. in Hispaniæ Regno Granatensi *Clemente (Lagasca.)*

“S. foliis cuneato-ovatis inciso-crenatis hirtis, floralibus petiolatis lanceolatis ciliatis, floribus spicatis.

“Suffrutex semi-1-pedalis, procumbens, pilis albis mollibus hirtus. Folia basi integerrima, in petiolum brevem angustata; floralia petiolata, lanceolata, acuta, ciliata, calycem superantia. Calyx inflatus, fauce angustatus, semiquinquefidus, laciniis inæqualibus acutis, superiore ovata brevior.”—*Lag. l. c.*

SECTIO VI. SCORODONIA.

Verticillastri biflori, secundi, in racemos terminales sæpius ramosos dispositi. Calyx campanulatus declinatus, dentibus superioribus præsertim supremo latioribus. Corollæ laciniæ superiores oblongæ, declinatæ. Achenia parva, subglobosa, rugosa, vel sublævia.—Herbæ perennes, adscendentes vel erecti, ramosi.

30. *T. TOMENTOSUM* (Heyne! Benth. in Wall. Pl. As. Rar. 1. 58), herbaceum? erectum, ramis tomentoso-pubescentibus, foliis ovatis basi rotundatis supra villosis subtus tomentoso-pubescentibus canescentibus rarius subglabris, racemis paniculato-ramosissimis, calycibus declinatis pilosis bilabiatis, dente supremo latiore.

β glabriusculum.

Hab. in India orientalis peninsula *Wight! Heyne! Leschenault!* *β* in Ceylonæ monte Nuera Ellia *Macrae!* (*h. s. sp. e Mus. Angl. Ind., et comm. a cl. Wight, et v. s. sp. β in herb. Hooker et Lindley.*)

Herba perennis, basi dura vel forsan lignosa, 2-pluri-pedalis. Folia ampla (2-4-poll. longa, 1½-2-lata), mollia, subtus plerumque tomento vel pubescentia molli canescentia, supra breviter pubescentia, grosse et acute crenata; floralia sub ramis panicularum parva, subconformia, intra racemulos bractæformia, ovata, acuminata, calyces subæquantia, decidua. Racemuli multiflori in paniculis densis pedunculatis axillaribus terminalibusque dispositi. Calyces pedicellati tubuloso-campanulati, sæpius pilosissimi, dente supremo ovato acuto, lateralibus dimidio minoribus, infimis lanceolatis acuminatis. Corolla flavescens? tubo incluso.

31. *T. STOLONIFERUM* (Hamilt. Benth. in Wall. Pl. As. Rar.

1. 58. an Roxb. Fl. Ind. 3. 3?) herbaceum, adscendens vel erectum, glabrum vel tenuissime pubescens, foliis ovatis basi rotundatis cuneatisve utrinque viridibus non rugosis, racemis paniculato-ramosis, calycibus declinatis pilosiusculis ovoideis, fructiferis inflatis, dente supremo latiore, corollæ tubo incluso.

Hab. in Asia orientali: in Indiæ orientalis provincia Sillet *Roxburgh*, *Wallich*! in regno Burmannico ad montem Taong Dong *Wallich*! in China *Millett*! *Reeves*! (*h. s. sp. comm. a cl. Hooker.*)

Radices teste *Roxburghio* stoloniferae. Caules annui, 1-2-pedales, apice paniculato-ramosi. Folia longiuscule petiolata, 1-2-pollicaria, tenuia, vix rugosa, profunde crenata; floralia sub ramis paniculae conformia, minora, in racemulis bracteaformia, calyce breviora. Racemuli graciles, numerosi, sæpe pubescentes. Flores numerosi, penduli, *T. Scorodoniæ* breviores. Calyces ovoideo-campanulati, fructiferi inflati, ore contracti. Dentes breves, supremus lato-ovatus obtusus, laterales dimidio-minores, infimi lanceolati. Corolla flavescent.

I have not seen any stolones in any of the specimens I have examined, but, from Dr. Hamilton's name, I should presume that they exist, at least occasionally.

32. *T. VISCIDUM* (Blume. Bijdr. 827).

Hab. in Java: in humidis montanis prope Tugu, ad pedem montis Pangurangu *Blume*.

"*T. foliis ovatis grosse inæqualiter serratis rugosis, racemis axillaribus terminalibusque secundis, calycibusque viscido-pubescentibus, bracteis lanceolatis longitudine calycis, caule tetragono, subramoso.*

"Affine *T. lusitanico*."—*Blume l. c.*

33. *T. LAXUM* (Don! Prod. Fl. Nap. 109), herbaceum, procumbens? vel scandens? tenuiter pubescens, foliis ovato-lanceolatis acuminatis serratis utrinque viridibus, racemis subsimplicibus axillaribus terminalibusque, calycibus oppositis declinatis pilosiusculis, dente supremo latissimo.

Hab. in Napalia *Hamilton*! (*v. s. sp. in herb. Lambert.*)

A *T. stolonifero* differt habitu, foliis angustioribus et racemis brevibus laxis paucifloris. Exemplar in herbario Lambertiano servatum flexuosum videtur et subscandens.

34. *T. ROYLEANUM* (Wall.; Benth in Wall. Pl. As. Rar. 1. 58), herbaceum, adscendens, ramis hispidis, foliis breviter petiolatis lanceolato-ovatis acutis serratis basi subcordatis rugosis villosis subtus canescentibus, racemis brevibus subsimplicibus, foliis floralibus superioribus calyce brevioribus, calycibus declinatis hispidis bilabiatis, dente supremo latiore, corollæ tubo subexserto.

Hab. in Indiæ orientalis montium lapidosis: in Deyra Dhoon et ad Kheeree Pass *Royle*! inter Mussouri et Lagrassou *Jacquemont*. (*h. s. c. e Mus. Angl. Ind. et v. s. sp. e Mus. Pur.*)

Affine *T. quadrifario*, sed habitu et characteribus datis distinctum. Caulis basi procumbens, ramis vix 1-1½-pedalibus. Racemi sæpius vix pollicares, pauciflori. Corollæ majores quam in *T. quadrifario*, purpureæ vel albidæ.

35. *T. QUADRIFARIUM* (Hamilt. in Don. Prod. Fl. Nap. 108), herbaceum, erectum, ramis tomentoso-villosis hispidisve, foliis breviter petiolatis ovatis serratis basi cordatis rugosis villosis subtus subcanescentibus, racemis ramosis, foliis floralibus late ovatis acuminatis calyces

superantibus, calycibus declinatis hispidis subbilabiatis, dente supremo latiore, corollæ tubo incluso.

β glabrior.

Hab. in Indiæ orientalis montium lapidosis et ad vias: in jugo Himalayano vulgare *Wallich! Royle! Hamilton! Lady Dalhousie! Jacquemont! &c.*, in Mussooree *Royle! Jacquemont! Sillet Wallich!* *β* in regno Burmannico ad montem Taong Dong *Wallich!* (*h. s. sp. e Mus. Angl. Ind., et Mus. Par., et comm. a cl. Royle.*)

Herba 1-3-pedalis, parum ramosa, caulibus crassis sæpe rufescentibus. Folia 1-2-pollicaria, mollia, superiora sessilia; floralia bractæformia, late cordata, acuminata, membranacea, sæpe colorata, ante anthesin imbricata subcomosa, post anthesin decidua. Racemi 4-5-pollicares, densi, secundi, rubescentes. Flores pedicellati, penduli. Calyces majores quam in *T. scorodonia*, dentibus obtusis, supremo lato-ovato, lateralibus conformibus sed dimidio minoribus, infimis lanceolatis supremum æquantibus. Corolla purpurea, calyce duplo longior, tubo incluso.

Var. *β glabrior* est, racemis ramosioribus gracilioribusque, foliis floralibus minoribus vix coloratis, sed nonnisi hujus speciei varietas videtur.

36. *T. ARGUTUM* (Br. Brod. 504), herbaceum, humile, erectum, ramis villosis, foliis lanceolato-ovatis ovatisve crenato-serratis basi truncatis utrinque viridibus hispidulis, racemis subsimplicibus, foliis floralibus lanceolatis calyces superantibus, calycibus declinatis villosis subbilabiatis, dente supremo latiore, corollæ tubo incluso.

Hab. in Nova Hollandia *R. Brown!* (*v. s. sp. in herb. Delessert et Endlicher.*)

Herba semipedalis vel vix altior, ramosa. Folia vix pollicaria, longiuscule petiolata; floralia sessilia, integerrima, acuta, ciliata, calycibus paulo longiora. Racemi densi, plerumque simplices. Flores subsecundi, brevissime pedicellati. Ab affini *T. quadrifario* differt statura humiliore, foliis longius petiolatis et foliis floralibus angustioribus.

37. *T. SCORODONIA* (Linn.! Spec. 789), herbaceum, erectum, hispidum, pubescens vel subglabrum, foliis ovatis obtusis crenatis basi rotundatis cordatisve utrinque viridibus ovatis, racemis subramosis supremis paniculatis, foliis floralibus minutis, calycibus declinatis villosulis late campanulatis subbilabiatis, dente supremo maximo, corollæ tubo exserto.

T. Scorodonia. *Hook. Fl. Lond. v. 2. ic. Eng. Bot. 22. t. 1543.*

Scorodonia heteromalla. *Mænoch. Meth. 384.*

T. sylvestre. *Lam. Fl. Fr. 2. 412.*

Scorodonia sylvestris. *Link. Handb. 458.*

Hab. in Europæ fere totius sylvis ad sepes, &c.: in Scotia *Hooker*, Anglia! Gallia! Hispania *Pavon!* Germania! Italia! Sicilia *Gussone.* (*v. v. et h. s. sp.*)

Caules simplices vel parum ramosi, 1-2-pedales, tetragoni, basi duri, interdum sublignosi. Folia 1-2-pollicaria, valde rugosa, breviter petiolata; floralia infima subconformia, parva, sessilia, superiora bractæformia, lanceolata vel ovata, calyce breviora. Racemi graciles, laxi. Flores pedicellati penduli. Calyces basi infra subgibbi, subinflati, fructiferi fere *Ocymi sancti* submembranacei, reticulati, dente supremo patente latissimo brevissime acuminato, lateralibus lato-ovatis acutis brevioribus, infimis lato-lanceolatis acutis adscendentibus. Corolla flavescent, extus pubescens, tubo calyce duplo longiore, labii lobo infimo oblongo concavo, superioribus brevibus obtusis, 2 supremis latioribus.

38. *T. PSEUDOSCORODONIA* (Desf. ! Fl. Atl. 2. 5. t. 119), suffruticosum, erectum, hispidum vel pubescens, foliis ovatis obtusis crenatis basi rotundatis cordatisve utrinque viridibus vel subtus canescentibus, racemis subsimplicibus, foliis floralibus minutis, calycibus declinatis villosulis subbilabiatis dente supremo maximo, corollæ tubo incluso vel vix exserto.

Scorodonia salviastrum. Link. Handb. 458 ?

Scorodonia Fontanesiana. Ser. Bull. Bot. 315.

Hab. in Africa boreali ad montem Lazar prope Majane Algeriæ *Desfontaines* ! Tanger *Salzmann* ! et Gibraltariam *Durand* ! et in Italia australiore ? (*h. s. sp. comm. a cl. Bouschet-Doumeng et Salzmann.*)

A *T. Scorodonia* non differt nisi caule basi fruticoso, ramis erectis vix pedalibus, racemo simpliciore, calycibus parum majoribus et corollis brevioribus. Flores flavescentes.

39. *T. MASSILIENSE* (Linn. ! Spec. 789), herbaceum, adscendens, ramis cano-pubescentibus, foliis ovatis crenatis basi rotundatis cordatisve rugosis inferioribus subtus canescentibus, racemis subsimplicibus ramosisve laxis secundis, foliis floralibus calyce brevioribus, calycibus declinatis villosulis subbilabiatis dente supremo majore, corollæ tubo incluso.

T. massiliense. Jacq. Hort. Vind. 1. t. 94.

Scorodonia massiliensis. Link. Handb. 458.

Scorodonia cordata. Mæench. Meth. 385.

T. odoratum. Lam. Fl. Fr. 2. 413.

T. foliis ovatis, &c. Ger. Fl. Gallopr. 277. t. 11.

Hab. in Europa mediterranea : Massiliæ, et in insulis Stæchadibus et Corsica *Requien* ! Sardinia *Müller* ! Creta *Sieber* ! (*h. s. sp.*)

Herba pedalis, adscendens vel erecta, ramosa. Folia semipollicaria vel rarius pollicaria, valde rugosa. Racemi et flores *T. pseudoscorodonæ*, cui hæc species valde affinis est. Corollæ purpureæ.

40. *T. LUSITANICUM* (Lam. Dict. 2. 692), herbaceum vel suffruticosum, ramis cano-pubescentibus, foliis lanceolatis crenatis rugosis subtus subcanescentibus, racemis subramosis laxis secundis, calycibus declinatis dente supremo latiore, corollæ tubo incluso.

T. asiaticum. Linn ! Mant. 80. Jacq. Hort. Vind. 3. t. 41.

T. salviastrum. Hoffm. Fl. Port. 84. t. 2. sec. *Poiret.* non Schreb.

Scorodonia lancifolia. Mæench. Meth. 384.

Hab. in Europa austro-occidentali : in Hispania *Pavon* ! Lusitania *Herb. Lambert* ! ins. Balearica Majore in fissuris rupium montis Puig-Major *Cambessèdes.* (*h. s. sp. comm. a cl. Lambert.*)

Habitus *T. massiliensis*, a quo vix nisi foliorum forma differt, character equidem verosimiliter satis constans. Racemi plerumque laxiores. Corolla purpurascens *T. massiliensis.*

Species Sectionis VI. non satis nota.

41. *T. SALVIASTRUM* (Schreb. Unilab. 38).

Hab. in Lusitania *Schreber.*

February 1835.

4 T

"T. foliis ovalibus crenulatis rugosis subtus tomentosis petiolatis, racemo secundo.

"Radix lignosa. Caulis erectus, pubescens, subviscidus. Folia inæqualiter crenulata, basi apiceque rotundata, venulis dense reticulata, supra villo brevissimo sericeo cana, subtus albida, petiolis brevibus insidentia, *Salviæ* foliis similia sed minora; floralia pariter petiolata, lanceolata, acuta, inferiora serrata, longitudine foliorum, superiora minuta, integerrima. Racemus brevis. Pedunculi calyce paulo breviores, pubescentes. Flores nihilo minores quam *Scorodonie*. Calyx pilosus, semiquinquefidus, dentibus lanceolatis, fere æqualibus, summo paulo latiore. Corolla externe villosa, tubo longitudine calycis. Stamina curva."—*Schreb. l. c.*

A *T. massiliensi* differe videtur foliis utrinque canis.

SECTIO VII. SCORDIUM.

Verticillastri 2-6-flori, distantes, axillares, foliis floralibus caulinis conformibus. Calyx tubulosus declinatus, basi infra gibbus, dentibus 5 subæqualibus vel supremo latiore. Corollæ lacinie superiores oblongæ, declinatæ. Achenia valde vel vix rugosa.—*Herbæ annuæ vel perennes.*

42. *T. SPINOSUM* (Linn.! Spec. 793), herbaceum, ramis apice spinescentibus, verticillastris axillaribus remotis 1-6-floris, calycibus declinatis dente supremo latissimo.

T. spinosum. Sm. et Sibth. Fl. Græc. 6. 31. t. 539.

T. mucronatum. Linn. Spec. 793.

Scordium spinosum. Cav. Ic. Rar. 1. 19. t. 31.

Scorodonia spinosa. Link. Handb. 458.

Hab. in Europa et Africa Mediterranea: in Lusitania *Herb. Lambert!* Hispania *Pavon!* circa Matritum *Lagasca!* Andalusia *Hænsler!* Sicilia *Gussone!* regno Neapolitano *Tenore*, inter Smyrnam et Bursam *Sibthorp!* ad mare prope Jaffa *N. Bové!* et in ins. Canariensibus *Ch. Smith! (h. s. sp.)*

Herba procumbens, divaricato-ramosissima, ramis rigidis villosis fere omnibus apice spinescentibus. Folia inferiora oblonga, basi longe angustata, apice inciso-serrata, superiora et ramealia parva, integriora, sæpe abortientia, omnia utrinque viridia, pubescentia. Calyces virides, pubescentes, subsessiles, basi subtus inflato-gibbi, dentibus subspinescentibus, supremo lato-ovato, inferioribus subulatis. Corolla parva, alba, torsione tubi resupinata. Achenia parva, subglobosa, vix rugosa.

43. *T. RESUPINATUM* (Desf.! Fl. Atl. 2. 4. t. 117), annuum, villosum, foliis oblongis inciso-dentatis basi angustatis utrinque viridibus, floralibus subconformibus angustioribus, verticillastris axillaribus bifloris, calycibus declinatis basi infra gibbis tubulosis, dentibus aristatis supremo basi latiore.

Hab. in Africæ borealis campis argillosis prope Mascar *Desfontaines!* Tanger *Salzmann!* Algeriam *Broussonet!* (*h. s. sp. a cl. Salzmann lectum.*)

Herba semipedalis vel parum altior, erecta, divaricato-ramosissima. Folia inferiora profunde incisa; lobis latis sinibus angustissimis, superiora et floralia dentibus paucis acutis notata, flores subsuperantia. Verticillastri secundi. Calyces pedicellati, villosi, basi infra gibbi, dente supremo demum patente. Corolla flavescens, torsione tubi resupinata. Tubus supra profunde fissus; lacinia infima lata, superiores parvæ, oblongæ, purpurascens. Achenia parva, globosa, reticulata.

44. *T. SCORDIUM* (Linn. ! Spec. 790), herbaceum, perenne, villosum, rarius glabratum, foliis oblongis dentatis basi angustatis rotundatisve sessilibus utrinque viridibus, floralibus conformibus, verticillastris axillaribus 2-6-floris, calycibus declinatis campanulatis dentibus brevibus subæqualibus.

Chamædrys Scordium. *Mænoch. Meth.* 384.

T. palustre. *Lam. Fl. Fr.* 2. 411.

T. arenarium. *Gmel. Itin.* 1. 149. t. 26. f. 2.*

Hab. in Europæ et Asiæ temperatæ humidis uliginosisque: in Hibernia *Herb. Hooker!* Anglia! Gallia! Germania! in Italiæ pratis montosis rarius *Tenore, Gussone*, in Rossia australi ad flumen Kumam *Gmelin?* prope Lenkoran *C. A. Meyer*, in deserto Soongoro-Kirghisico *Ledebour!* in Cashmeria circa Bandeh et Botioug *Jacquemont!* (*v. et h. s. sp.*)

Caules basi repentis, radicanter. Rami floriferi erecti vel adscendentes, semipedales vel vix pedales, simplices vel parum ramosi, plus minusve villosi. Folia circiter pollicaria, mollia; floralia floribus longiora. Calyces pedicellati, breves, basi valde obliqui vel subtus inflato-gibbi, pubescentes, virides. Corollæ parvæ, purpurascens. Achenia subglobosa, rugosa. Species cum *T. scordioide* sæpissime confusa, et idcirco habitationes plures omisi e quibus exemplaria non vidi.

45. *T. SCORDIOIDES* (Schreb. Unilab. 37), herbaceum, perenne, lanuginosum, rarissime glabriusculum, foliis ovato-oblongis crenatis basi cordato-amplexicaulibus utrinque viridibus, floralibus conformibus, verticillastris axillaribus sexfloris, calycibus declinatis campanulatis dentibus brevibus subæqualibus.

T. Scordium. *Brot. Fl. Lusit. Bieb. Fl. Taur.-Cauc.* 2. 36. *Eng. Bot.* 12. t. 828. et *Auct. plur. non Linn.*

T. lanuginosum. *Hoffm. et Link. Fl. Port.* 1. 84. t. 3.

Hab. in Europæ præsertim australioris uliginosis potius maritimis: in Lusitania *Brotero, &c.*, Hispania *Pavon!* Gallia australi! Italia omni vulgatissimum et in Sicilia *Gussone!* Sardinia *P. Thomas!* ins. Creta *Sieber!* Smyrnæ *Fleischer!* Syria prope Aleppo *Russell!* Tauria *Bieberstein*, necnon in Angliæ comitatu Cambridge *Herb. Banks!* et in ins. Canariensibus *Hort. Berol.* (*v. v. et h. s. sp.*)

T. Scordio habitu simillimum, sed sæpius villosius, et constanter differe videtur foliis brevioribus, basi cordato-amplexicaulibus nec angustatis.

46. *T. BOTRYS* (Linn. ! Spec. 786), annuum, villosum, foliis profunde pinnatisectis, laciniis oblongis integerrimis incisisve divaricatis utrinque viridibus, floralibus conformibus, verticillastris axillaribus sexfloris, calycibus infra basi gibbis inflato-tubulosis dentibus lanceolatis æqualibus.

Chamædrys Botrys. *Mænoch. Meth.* 383.

Scorodonia Botrys. *Ser. Bull. Bot.* 317.

Hab. in Europæ australioris et Africæ borealis calcareis aridis siccis: in Gallia! Hispania *Pavon!* Germania *Reichenbach*, Italia *Tenore*, Sicilia *Gussone*, et Algeriæ *Desfontaines.* (*v. v. et h. s. sp.*)

* It is not clear from Gmelin's bad figure whether he intended to represent this or the following species.

Herba erecta vel adscendens, ramosa, semipedalis vel parum altior, pilis brevibus patentibus plus minusve villosa. Folia fere *T. campanulati* vel *orientalis*, petiolata, circumscriptione rhomboidea; floralia omnia flores superantia. Calyces pedicellati, basi infra fere saccati, pubescentes, virides, 3-4 lin. longi. Corollæ parvæ, purpurascentes. Achenia valde rugosa.

SECTIO VIII. CHAMÆDRYS.

Verticillastri 2-6-flori, distincti, in racemo laxo terminali dispositi. Calyx tubuloso-campanulatus, declinatus, basi obliquus, dentibus 5 subæqualibus vel superioribus vix latioribus. Corollæ laciniae superiores oblongæ, declinatæ. Achenia reticulata, leviter rugosa. — Suffrutices vel fruticuli erecti vel basi procumbentes.

47. *T. LUCIDUM* (Linn.! Spec. 790), herbaceum, perenne, glaberrimum, foliis petiolatis ovatis inciso-dentatis basi crenatis, floralibus minoribus vix dentatis, verticillastri 2-6-floris superioribus racemosis, calycibus declinatis tubuloso-campanulatis dentibus lanceolatis subæqualibus.

Chamædrys lucida. Mænoch. Meth. 383.

Hab. in regionis Mediterraneæ fissuris rupium: in Alpibus Galloprovinciæ et Pedemontii frequens! in Atlante *Desfontaines*, in montibus Cyrenaicis *Viviani*. (v. v. et h. s. sp.)

A *T. Chamædryo* differt, caulibus basi firmioribus erectioribus elatioribus, foliis caulinis majoribus tenuioribus (floralibus sæpe minoribus), et præsertim glabritie omnium partium. Rami tenues, sæpe purpurascentes, lævissimi. Foliorum dentes profundi, inferiorum obtusi, superiorum acuti. Calyces purpurascentes. Corolla rubro-purpurea, *T. chamædryos* paullo minor.

48. *T. CHAMÆDRYS* (Linn.! Spec. 790), perenne vel suffruticosum, basi procumbens, pubescens vel villosum, rarius glabratum, foliis breviter petiolatis ovatis oblongisve inciso-crenatis basi cuneatis utrinque viridibus vel subtus canescentibus, floralibus minoribus vix dentatis, verticillastri 2-6-floris superioribus racemosis, calycibus declinatis tubuloso-campanulatis dentibus lanceolatis subæqualibus.

T. Chamædrys. Eng. Bot. 10. t. 680.

Chamædrys officinalis. Mænoch. Meth. 383.

T. pseudochamædrys. Wender. Bot. Zeit. 1826. 1. 358.

T. multiflorum. Hortul. non Linn.

T. officinale. Lam. Fl. Fr. 2. 414.

Hab. in Europæ omnis et Asiæ Ponticæ collibus, ad muros, rupes, et vias, &c.: in Anglia! Gallia! Hispania! Germania! Italia! Sicilia *Gussone*, ad Byzantium et Trapezum *Durville*! in Tauria et Caucaso *Bieberstein*, et in regione Caspica *C. A. Meyer*. (v. v. et h. s. sp.)

Species in Europa vulgatissima variat pubescentia, nunc tenui canescente in ramis pagina foliorum inferiore et calycibus, nunc longiore et densiore in omnibus fere partibus, sed habitu et foliorum forma a *T. flavo*, *Maro*, et *multifloro*, hirsutie vel pubescentia racemorum a *T. lucido* constanter diversum. Rami floriferi adscendentes, semipedales vel vix pedales. Folia supra sæpe nitida, glabra vel villosula, subtus venosa; floralia inferiora conformia, superiora bractæformia,

integerrima, subcolorata. Racemi subsecundi. Calyces breviter pedicellati, sæpe colorati, dentibus subulato-acuminatis. Corolla rubro-purpurea, extus villosula.

49. *T. MULTIFLORUM* (Linn. Spec. 788 ?) suffruticosum, glabriusculum vel tenuissime cano-pubescent, foliis breviter petiolatis ovatis acutis basi angustatis apice acute dentatis utrinque viridibus vel subtus canescentibus, floralibus minoribus, verticillastris 2-6-floris distantibus racemosis, calycibus declinatis tubuloso-campanulatis dentibus lanceolatis subæqualibus.

Hab. in Hispania *Pavon* ! (*h. s. sp. comm. a cl. Lambert.*)

Inter *T. Chamædryos* et *Marum* fere medium. Habitu priori affine sed ramosius, ramis tenuibus basi lignosis. Folia 2-4 lin. longa, sæpius tenuia, utrinque viridia, apice serraturis utrinque 2-3 notata. Flores *T. Chamædryos* sed dimidio fere minores. Folia interdum fere integerrima, subtus subcanescentia, sed constanter a *T. Maro* floribus distinctum.

50. *T. MARUM* (Linn. ! Spec. 788), fruticulosum, incanum, foliis parvis ovatis integerrimis subtus incanis, floralibus minoribus, verticillastris 2-4-floris racemosis, calycibus declinatis hirsutis tubuloso-campanulatis dentibus brevibus subæqualibus.

Chamædryos Marum. *Mæsch. Meth.* 383.

T. maritimum. *Lam. Fl. Fr.* 2. 414.

Hab. in regione Mediterranea occidentali: in Hispania *Pavon* ! ins. Stæchadibus et Corsica *Requien* ! in insulis lacus Majoris Italiæ *Herb. de Candolle* ! (*h. s. sp.*)

Fruticulus ramosissimus, habitu fere *Thymi vulgaris*. Ramuli floriferi erecti, 3-6-pollicares, incani. Folia breviter petiolata, 2-4 lin. longa, obtusa, margine revoluta, rarissime obscure crenata, basi rotundata, supra canescentia, subtus tomento candido vestita, juniora sæpe ad axillas fasciculata; floralia conformia, sed calyce dimidio breviora et sæpe villosa. Verticillastri subsecundi in spicam 1-2-pollicarem approximati. Calyces minores quam in *T. Chamædryo*, semper pilis patentibus villosi, canescentes; dentes breves, acuti. Corolla purpurascens, extus villosa.

51. *T. MICROPHYLLUM* (Desf. ! Cor. Pl. Tourn. in Ann. Mus. Par. 10. 300. t. 22), suffruticosum, humile, divaricato-ramosissimum, foliis parvis ovatis crenatis supra glabris subtus incanis, verticillastris paucis subbifloris, calycibus declinatis tubuloso-campanulatis dentibus lanceolatis subæqualibus.

T. quadratum. *Sm. et Sibth. ! Fl. Gr.* 6. 25. t. 530. *vix Schreb.*

T. divaricatum. *Sieb. Pl. Exs. ?*

Hab. in ins. Cretæ rupibus *Tournefort* ! *Sibthorp* ! *Sieber* ! (*h. s. sp. comm. a cl. Endlicher, et v. s. sp. in herb. plur.*)

Etsi primo intuitu a *T. flavo* diversissimum videtur, tamen vix ab illius varietate β differt nisi habitu, ramis brevibus canescentibus, foliis minoribus, floribus paucioribus minoribusque. Corollæ rubro-purpureæ. Exemplaria Sieberiana inter Sibthorpiana et var. β *T. flavi*, quasi media.

52. *T. FLAVUM* (Linn. ! Spec. 791), fruticosum, ramis tomentoso-pubescentibus, foliis lato-ovatis crenatis basi truncatis cuneatisve utrinque viridibus vel subtus canescentibus, floralibus superioribus

integerrimis acutis, verticillastris 2-6-floris racemosis, calycibus declinatis tubuloso-campanulatis dentibus lanceolatis subæqualibus.

T. flavum. *Sibth. et Sm. ! Fl. Græc. 6. 27. t. 533.*

Chamædrys flava. *Mærch. Meth. 383.*

β *purpureum*, floribus rubro-purpureis, foliis sæpius subtus canescentibus.

T. regium. *Hortul. an Schreb. ?*

T. lucidum. *Sm. ! et Sibth. Fl. Græc. 6. 27. t. 532. non Linn.*

T. divaricatum. *Sieb. Pl. Exs. ?*

Hab. in Europæ et Africæ regione Mediterranea : in Hispania *Pavon !* Pyrenæis orientalibus ! Gallia australi ! Corsica *Sieber !* Sardinia *Müller !* Italia a Liguria ! ad regnum Neapolitanum *Tenore*, Sicilia *Gussone*, Dalmatia *Reichenbach*, in ins. Archipelagi Græci frequens *Sibthorp !* Algeria et in Atlante *Desfontaines*, in collibus maritimis Cyrenaicis et Tripolitanis *Viviani* ; β in Hispania *Pavon !* in Parnasso aliisque Græciæ montibus, necnon in ins. Cypro *Sibthorp !* in scopulo St. Istad prope Cimolum copiosissime *Durville !* prope Smyrnam *Fleischer !* (v. v. et h. s. sp. var. α , et v. s. sp. β , in herb. plur.)

Frutex 1-2-pedalis, basi ramosissimus, rami floriferi suberecti, pubescentia brevi vel tomento canescenti in omni parte vel bifariam vestiti. Folia crassiuscula, magnitudine variabilia (3-10 lin. longa, latitudine longitudinem æquante vel angustiora), constanter crenata, margine subreflexa, basi integerrima plus minusve cuneata, petiolo brevi, supra nunc glaberrima, lævia, nitida, sæpius pilis brevissimis numerosis pubescentia, subtus pauci-venia plus minusve pubescentia vel tomentosa ; floralia infima subconformia, angustiora, integriora, superiora bracteæformia, sessilia, ovata, acuta, concava, subcolorata. Verticillastri laxi, inferiores distantes, in racemum 2-8-pollicarem dispositi. Bracteæ inconspicuæ. Calyces pedicellati, basi valde obliqui, apice colorati (flavescentes in var. α , rubescentes in var. β), nunc vix pubescentes, nunc valde hirsuti, dente supremo parum latiore et subpatente. Corollæ flavescentes in var. α , rubro-purpureæ in var. β .

The var. β may perhaps be a distinct species, although, from dried specimens, I am unable to characterise it otherwise than by the colour of the flower. Its stature is also usually but not always smaller ; and in this respect Sieber's specimens of his *T. divaricatum* appear to connect this var. with the *T. microphyllum*.

53. *T. RAMOSISSIMUM* (Desf. Fl. Atl. 2. 4. t. 118).

Hab. in Barbariæ fissuris rupium prope Cafsam *Desfontaines*, in Hispania ?

"*T. incanum*, caule fruticuloso ramosissimo, ramulis filiformibus, foliis obovatis crenatis, floribus solitariis axillaribus.

"Frutex incanus, tomentosus, erectus, 8-15 centimetr. Rami numerosissimi, filiformes. Folia candida, superne pallidiora, magnitudine fere *T. Mari* petiolata, obovata, seu ovato-rhomboidea, inferne nervosa, crenata. Flores parvi, axillares et terminales, solitarii, subsessiles, folio breviores. Calyx tenuis, elongatus, candidus, 5-dentatus, dentibus acutis, subæqualibus. Corolla violacea. Tota planta odorem suavissimum spirat."—*Desf. l. c.*

From the figure and description this appears to be a perfectly distinct species, but I should much doubt whether Desfontaines is right in referring to it the *Chamædrys hispanica minima saxatilis incana* of Tournefort, which Schreber refers to his *T. quadratum*. The phrase might be much better applied to the *T. thymifolium*.

*Species Sectionis VIII. dubiæ.***T. NITIDUM** (Schreb. Unilab. 35).Hab. in Mauritania *Hebenstreit* (Schreber).

“T. foliis ovatis crenatis, floralibus integerrimis, verticillis dimidiatis racemosis, caule bifariam barbato.

“Caulis fruticosus, glaber, utroque quod a foliorum commissura descendit latere dense piloso. Folia breviter petiolata, basi integra, antice crenis obtusis margine reflexis incisa, glabra, nitida, nervo medio basi barbata, obtusa, dura; floralia fere lanceolata, pilosiora quam *T. flavi*, sicut et calyces. Flores minores quam istius. Corolla purpurea, auriculis minoribus obtusis non vero truncatis.”—*Schreb. l. c.*

An *T. flavi* var.?—nec ullo modo cum *T. lucido* convenit.

T. REGIUM (Schreb. Unilab. 35).Hab. in Hispania *Schreber*, in Italia *Morison*.

“T. foliis ovatis antice dentatis, floralibus integerrimis sessilibus, verticillis racemosis, caule ramoso.

“Fruticulus sesquipedalis, diffusus, ramis pubescentibus. Folia parva, petiolis brevibus insidentia, ovata, utrinque supra medium marginis 2-3-dentata, marginibus reflexis fere concava, saturate viridia, nitida (pilis brevissimis dense obsita microscopio tantum visibilibus), subtus incana, acuta; floralia minora, longitudine calycum, sessilia, integerrima. Verticilli contigui, florum 4 circiter in racemos digesti. Flores vix majores quam *Chamædryos*. Corolla purpurea, auriculis linearibus elongatis ad staminum flexuram attingentibus acutis.”—*Schreb. l. c.*

The above description agrees well with some states of *T. Chamædryos*. The figure of Plukenet, quoted by Schreber, is too bad to be of any use. In gardens the name of *T. regium* is often applied to the *T. flavum* β.

T. MYRTIFOLIUM (Poir. Dict. Suppl. 2. 766).Hab. in Oriente *Poiret*.

“T. caule erecto fruticoso pubescente, foliis ovatis subdentatis subtus villosis, floribus spicatis.

“*T. microphylo* affine. Frutex elatior, caule ramisque erectis, crassioribus, teretibus, pubescentibus. Folia mediocriter petiolata, ovata, acuta, supra glabra et viridescencia, subtus pubescentia, cinerea, vix dentata, 3-5 lin. longa. Flores axillares pedicellati, in racemo erecto terminali dispositi, inferiores solitarii, oppositi, superiores ternati, supremi aphylli. Calyces villosi, dentibus 5 acutis subæqualibus. Corollæ lacinia media labii inferioris dilatata, subrotunda, crenulata.”—*Poir. l. c.*

An *T. Mari* varietas? Cfr. Desf. Cat. Hort. Par. ed. 3. 394.

T. QUADRATULUM (Schreb. Unilab. 36).Hab. in Hispania *Schreber*.

“T. foliis ovato-rhombeis dentatis subtus niveis, verticillis racemosis.

“Perenne. Caulis vix spithamæus, erectus, basi ramosus, fere teres, tomento niveus. Folia *Mari* sed latiora, brevissime petiolata, rhomboidea, basi integerrima, ab angulo laterale ad apicem dentibus 4-5 incisa, margine reflexa, supra nitida (pilis brevissimis microscopio tantum discernendis obsita), basi apiceque acuta; floralia ovata, concava, apice dentata, pubescentia. Racemus brevis. Flores *Mari* brevissime pedunculati. Calyx pubescens. Corolla purpurea.”—*Schreb. l. c.*

This plant is usually considered to be the same as *T. ramosissimum* of Desfontaines, probably from both authors having quoted the same synonym of Tournefort. But Schreber's description agrees neither with Desfontaines' figure nor description. It appears to come very near *T. multiflorum* and *T. Chamædryos*.

T. SUBSPINOSUM (Pourr. ex Willd. Enum. Hort. Berol. 596).Hab. in ins. Balearicis *Pourret*. (*Willdenow*.)

“ T. foliis integerrimis ovatis acutis petiolatis margine revolutis pubescentibus subtus tomentosis, floribus racemosis, ramis spinescentibus. Perenne.” — *Willd. l. c.*

Simile T. *Maro*, sec. Willd. De hac plante silet cl. Cambessèdes in *Flora Insularum Balearium*.

SECTIO IX. POLIUM.

Verticillastri pauci, in capitula subglobosa terminalia condensati. Calyx tubuloso-campanulatus, subdeclinatus, basi obliquus, dentibus 5 subæqualibus vel superioribus vix latioribus. Corollæ lacinia superiores oblongæ, declinatæ, lateralibus parvis. Achenia valde rugosa. — Herbae perennes vel suffrutices, caulibus basi sæpius procumbentibus ramosissimis, ramis floriferis adscendentibus.

54. T. PYRENAICUM (Linn. ! Spec. 791), repens, villosum, foliis rotundatis crenatis utrinque viridibus, verticillastris paucis in capitulo terminali condensatis, calycibus tubuloso-campanulatis declinatis, dentibus subæqualibus.

Polium Pyrenaicum. Mill. ! Dict. n. 6.

Teucrium reptans. Pourr. Act. Tolos. 3. 330.

T. rotundifolium. Schreb. Unilab. 42 ?

Hab. in Europæ australis montibus Cataloniæ ! Aragoniæ ! Pyrenæorum Gallicorum ! et Arvernæ *Delarbre. (v. v. et h. s. sp.)*

Caules basi radicales, elongati, sub terra repentes. Ramuli steriles flagelliformes, fertiles, breviter adscendentes, pilis patentibus hispidi. Folia breviter petiolata, 4-8 lin. diametro, basi truncata rotundata vel cuneata, utrinque et præsertim ad margines et nervos pilis brevibus rigidiusculis hirsuta ; floralia sub capitulo cuneiformia, intra flores (bractæ) linearia, calycis longitudine. Capitula solitaria, terminalia, hemisphærica vel depresso globosa, pollicem diametro. Calyces subsessiles, 3-4 lin. longi, basi glabriusculi, apice ciliato-hispidi, dentibus lanceolatis, acutis, superioribus parum latioribus. Corolla flavida, lacinia infima sæpius purpurascente.

55. T. BUXIFOLIUM (Schreb. Unilab. 42), suffruticosum, foliis obovato-cuneatis crenatis margine subrevolutis supra viridibus subglabris subtus canescentibus, verticillastris in capitulo terminali condensatis, calycibus tubuloso-campanulatis declinatis dentibus subæqualibus.

T. saxatile. Cav. Icon. Rar. 2. 19. t. 121. f. 1.

Hab. in Hispaniæ saxorum fissuris et foraminibus siccis, vulgatissimum in montibus Sucronis, Orcellis, Sætabis, Sagunti *Cavanilles. (v. s. c. in herb. Lindley.)*

Caules basi procumbentes, adscendentes, sæpe ramosissimi, piloso-pubescentes. Folia semipollicaria, numerosa, basi in petiolum brevissimum angustata ; floralia sub capitulo approximata, flores superantia, intra capitulum parva, lanceolata. Capitula, calyces et flores T. *pyrenaici*. Corolla albicans, sæpe rubescens.

56. T. CUNEIFOLIUM (Sibth. et Sm. ! Fl. Græc. 6. 30. t. 537), procumbens, dense tomentoso-lanatum, foliis subrotundis crenatis basi cuneatis crassis utrinque dense tomentosis, verticillastris paucis in

capitula terminalia condensatis, calycibus tubulosis tomentosis dentibus brevibus subæqualibus.

Hab. in Cretæ montibus Sphacioticis *Sieber!* *Sibthorp!* (*h. s. sp. comm. a cl. Requier.*)

A *T. pyrenaico*, *saxatile* et *buxifolio* primo intuitu differt, caulibus foliis calycibusque tomento denso canescente vel flavescente indutis, cæterum habitu illis valde approximatur. Folia vix semipollicaria, crassa, marginibus subreflexis. Corollæ albæ, basi flavescens.

57. *T. ALPESTRE* (*Sibth. et Sm.!* *Fl. Gr.* 6. 31. t. 538), suffruticosum, humile, divaricato-ramosissimum, cano-vel flavescenti-villosum, foliis parvis obovato-cuneatis subrotundis crenatis margine revolutis, verticillastris paucissimis ad apices ramorum subcapitatis, calycibus declinatis ovato-tubulosis pilosis dentibus subæqualibus brevibus obtusis.

T. saxatile. *Sieb.!* *Pl. Cret. Exs. non Cav.*

Hab. in Creta: ad Mirabello *Sieber!* in montium Sphacioticorum summis jugis *Sibthorp!* (*h. s. sp. comm. a cl. Requier, et v. s. sp. in herb. plur.*)

Habitu *T. thymifolio*, characteribus *T. Polio* affine, et vix non hujus varietas. Ramuli duri, rigidi. Folia distantia, 2-3 lin. longa, utrinque subviridia. Capitula ad apices ramulorum magnitudine *Pisi*, e floribus 4-6 constantia. Corollæ parvæ, albæ.

58. *T. POLIUM* (*Linn.!* *Spec.* 792), suffruticosum, canescenti-tomentosum, lanatum vel rarius piloso-hispidum, foliis cuneatis oblongis linearibusve crenatis margine revolutis, verticillastris paucis in capitula globosa oblongave terminalia condensatis, calycibus tubuloso-campanulatis subdeclinatis dentibus subæqualibus.

α flavescens, foliis latioribus, capitulis hirsutissimis, ramorum apicibus flavescens.

T. aureum. *Schreb. Unilab.* 43. *Cav. Ic. Rar.* 2. 16. t. 117.

T. flavicans. *Lam. Dict.* 2. 700.

T. tomentosum. *Vill. Fl. Delph.* 2. 352.

Polium aureum. *Mæench. Meth.* 385.

Polium luteum. *Mill.!* *Dict. n.* 2.

β hirsutum, foliis oblongis vix canescentibus capitulisque pilosis.

T. ægyptiacum. *Pers. Syn.* 112.

γ vulgare, foliis oblongis capitulisque tomentoso-lanatis, floribus albis.

T. Polium. *Linn.!* *et Auct. Sm.!* *et Sibth. Fl. Græc.* 6. 29. t. 535.

T. pseudhyssopus. *Schreb. Unilab.* 45.

T. Teuthrion. *Schreb. Unilab.* 46.

T. Belion. *Schreb. Unilab.* 47.

T. lusitanicum. *Schreb. Unilab.* 47. ? non *Lam.*

T. album. *Poir. Dict. Suppl.* 2. 770.

T. trifoliatum. *Vahl. Symb.* 1. 40.

T. subtriphyllum. *Lag. Gen. et Sp. Nov.* 17.

Polium album. *Mill.!* *Dict. n.* 4.

Polium latifolium. *Mill.!* *Dict. n.* 7.

Polium smyrneum. *Mill.!* *Dict. n.* 15.

Polium angustifolium. Mill. ! Dict. n. 3.

Polium ramosum. Mill. ! Dict. n. 2.

Polium diffusum. Mill. ! Dict. n. 13.

δ *gnaphalodes*, humile, foliis capitulisque densissime lanatis.

T. gnaphalodes. Vahl. Symb. 1. 41. L'hér. Stirp.

T. lanigerum. Lag. Gen. et Sp. Nov. 17. ?

ε *purpurascens*, foliis oblongis capitulisque tomentoso-lanatis, floribus rubro-purpureis.

T. Achæmenis. Schreb. Unilab. 44.

Polium integerrimum. Mill. ! Dict. n. 14.

ζ *angustifolium*, foliis linearibus vel lineari-oblongis, capitulisque parvis cano-tomentosis rarius flavicantibus.

T. capitatum. Linn. Spec. 792. Cav. Ic. Rar. 2. 17. t. 119. Sm. ! et Sibth. Fl. Gr. 6. 30. t. 536.

T. flavescens. Schreb. Unilab. 44.

T. valentinum. Schreb. Unilab. 46.

T. pycnophyllum. Schreb. Unilab. 48. ?

T. lavandulatum. Pourr. !

T. corymbiferum. Desf. Fl. Atl. 2. 8. ?

T. cylindricum. Lam. Steud. Nom. Bot. 829. ?

Polium capitatum. Mill. ! Dict. n. 5.

Polium serratum. Mill. ! Dict. n. 12.

Polium spicatum. Mill. ! Dict. n. 10.

Polium fruticosum. Mill. ! Dict. n. 11.

Polium erectum. Mill. Dict. n. 8.

Hab. in Europæ, Africæ, et Asiæ regione Mediterranea et Pontica, et sæpius in siccis, aridis, arenosis, petrosisve locis : in Lusitania *Masson* ! Hispania *Pavon* ! Barbaria *Desfontaines*, Gallia australi ! Italia a Pedemonte ! ad regnum Napolitanum *Tenore*, Corsica *Requien* ! Sardinia ! *Müller*, Sicilia *Gussone*, in montibus Græciæ et Asiæ minoris tum in Archipelagi insulis frequens *Sibthorp* ! *Durville* ! &c., Smyrnæ *Fleischer* ! in deserto Sinaico *N. Bové* ! in Tauria et Caucaso frequens *Bieberstein*, *Durville* ! *Pallas* ! &c., et in regione Caspica *C. A. Meyer*, α in regionibus occidentalibus vulgatior ; β in Ægypto et Creta ? δ in Hispania ; ε in maritimis Massiliæ, maris Adriaticæ et alibi ; γ et ζ in tota regione vulgaris. (v. v. et h. s. sp.)

Caules basi ramosissimi. Rami basi procumbentes, adscendentes vel rarius suberecti, sæpius 5-6-pollicares, rarius pedales, vel tantum 2-3-pollicares, nunc tomento brevi denso, nunc lana longiore laxa, vel etiam pilis subpatentibus, canescentes, simplices vel ramosi, apice sæpius corymbosi. Folia constanter sessilia, basi angustata, molliter rugosa, crassiuscula, obtusa, crenata, et margine plus minusve revoluta, sed quam maxime variant forma obovata, cuneata, oblonga, vel lineari, margine vix reflexo vel omnino revoluta, superficie brevissime tomentosa, dense lanata vel pilosa, colore (præsertim superiorum) cano-flavescente, aureo vel rarius viridi, crenaturis plus minusve profundis, etc. Verticillastri 2-6-flori. Folia floralia caulinis subconformia, sed calycibus sæpius breviora et cum iis imbricata. Capitula ad apices ramorum solitaria vel sæpius plura corymboso-glomerata, nunc globosa, magnitudine a *piso* minore ad *cerasum* variantia, nunc oblonga vel rarius elongata, spiciformia, colore et lana uti folia variabilia (in var. *purpurascens*.) Corolla parva, alba, flavescentis vel purpurea.

It is I think impossible, on observing the numerous forms above enumerated in a wild state, not to agree with *Gussone* (*Prod. Fl. Sicul.*) and some others, in considering them as mere varieties of one species.

59. *T. AMPLEXICAULE*, suffruticosum, ramis albo-lanatis, foliis ovato-oblongis oblongisve crenatis basi sæpius cordato-amplexicaulibus margine valde revolutis supra leviter tomentosis demum glabratis subtus dense niveo-lanatis, verticillastris paucis globoso-capitatis, calycibus declinatis tubuloso-campanulatis dentibus subæqualibus latis acutis, corollæ tubo exserto.

Hab. in Hispania *Capt. Cooke!* (*h. s. sp. comm. a cl. Lindley.*)

Habitu et foliis varietatibus nonnullis *T. Polii* affinis, etsi hæc rigidiora sunt, et supra minus, subtus magis tomentosa. Flores fere *T. montani* vel *pyrenaici*, multo majores quam in *T. Polio*; a *T. thymifolio* differt statura elatiore, foliorum forma, et capitulis majoribus.

60. *T. THYMIFOLIUM* (Schreb. Unilab. 50), suffruticosum, humile, ramosissimum, ramulis incanis adscendentibus, foliis oblongis obovatisve crenatis subtus vel utrinque incanis, verticillastris subbifloris paucissimis ad apices ramorum subcapitatis, calycibus declinatis tubuloso-campanulatis dentibus subæqualibus latis acutis, corollæ tubo subexserto.

Hab. in Hispania *Pavon!* regno Valentino *L. Dufour!* (*h. s. sp. comm. a cl. Schultes et Lambert.*)

Habitus fere *T. alpestris*. Caulis basi crassus, lignosus, ramulis numerosis cæspitulosus 2-3-pollicaribus. Folia conferta, brevia, basi angustata, minus rugosa et tomentosa quam in *T. Polio*, minus lævia quam in *T. montano*. Flores in ramulo singulo 2-6, vix capitati. Calyces forma *T. montani*, sed dimidio minores, uti corollæ rubescentes.

61. *T. MONTANUM* (Linn.! Spec. 791), suffruticosum, prostratum, ramis incanis vel pubescentibus, foliis oblongo-linearibus integerrimis subtus vel utrinque incanis planis vel margine revolutis, verticillastris paucis in capitula terminalia condensatis, calycibus subdeclinatis tubuloso-campanulatis glabris incanisve dentibus subæqualibus lanceolatis subulato-acuminatis.

T. montanum. Sm.! et Sibth. Fl. Gr. 6. 28. t. 534.

T. supinum. Linn.! Spec. 791.

Polium montanum. Mill.! Dict. n. 1.

Hab. in Europæ australioris collibus montibusque imprimis calcareis: in Hispania *Pavon!* Gallia australi! Germania, præsertim australi! Italia! Sicilia *Gussone*, in Græciæ montibus Delphi, Atho et Olympo Bithyno *Sibthorp!* Volhynia *Besser!* in Tauriæ summo monte Tschaturdag *Bieberstein.* (*v. v. et h. s. sp.*)

Caulis basi lignosus, ramosissimus, ramis tenuibus fere omnino prostratis elongatis, summitatibus breviter adscendentibus vel rarius 2-4-pollicaribus suberectis. Folia supra læviuscula, subtus paucivenia, nec ut in *T. Polio* molliter rugosa, obtusa, basi angustata in petiolum brevissimum, cæterum latitudine et canescentia paginæ superiores valde variant, infra semper incana; floralium par infimum capitulum sæpius superat, cætera pauca, brevia. Capitula multo majora quam in *T. Polio*, fere semper in ramulis solitaria, hemisphærica, e verticillastris 2-4, 4-6-floris, constantia. Calyces subsessiles, basi attenuati, vix nervosi, læves, virides vel parum incani, rarius pilosi, 3-4 lin. longi, dentibus lanceolatis subulato-acuminatis. Corolla ex albo flavescens.

62. *T. PUMILUM* (Linn.! Spec. 792?), suffruticosum, procumbens vel erectum, ramis incanis, foliis anguste linearibus integerrimis subtus incanis margine revolutis, verticillastris paucis in capitula terminalia

condensatis, calycibus subdeclinatis tubuloso-campanulatis dentibus subæqualibus lanceolatis subulato-acuminatis.

T. Libanitis. Schreb. *Unilab.* 38. ? Cav. *Icon. Pl. Rar.* 2. 17. t. 118.

Hab. in Hispania ! (*h. s. sp. comm. a cl. Requier, et v. s. sp. in herb. plur.*)

Vix ac ne vix a *T. montano* differt caule sæpius erectiore, foliis angustioribus et floribus purpurascens.

63. *T. VERTICILLATUM* (Cav. *Icon. Pl. Rar.* 2. 77. t. 198).

Hab. in Hispania juxta Illicatanam lamam, sive aquarum collectionem arte peractam, copiose vero in Crevillente montibus præsertim prope Sanctum Caietanum *Cavanilles*.

“ *T. foliis verticillatis linearibus, limbo revolutis, caule erecto.*

“ Radix lignosa, ex qua caules prodeunt teretes, erecti, vix pedales, ramosi, tomento obducti brevissimo albo. Folia sessilia, verticillata, verticillis approximatis : in his folia sunt sæpe 6, frequentius 4, sublinearia, glauco-albida, limbo arcte contra nervum revoluti. Flores capitati, capitulis terminalibus basi foliosis. Calyx turbinatus, striatus, tomentosus, 5-crenatus, crenula altera latiore. Corolla lutescens, cujus labium trilobum, lobo medio ovato concavo auriculis utrinque aucto, lateralibus brevioribus.”—Cav. *l. c.*

Species Sectionis IX. dubiæ.

T. ANGUSTISSIMUM (Schreb. *Unilab.* 39).

Polium, &c. Barr. *Icon.* 1080.

Hab. in Hispania *Schreber*.

“ *T. capitulis terminalibus pilosis, foliis linearibus integerrimis subnudis, caule erecto.*

“ Suffrutex. Caulis digitalis, basi flexuosus, filiformis, tomento denso albus. Folia omnium angustissima, fere filiformia, margine revoluta, linea per longitudinem insculpta divisa, vix pubescentia, nervo medio subtus tomentoso, obtusa, longitudine internodiorum, inferiora minora, confertiora. Capitula solitaria, parva, subrotunda, e ternis conglomerata, densa. Folia floralia ovalia, calyce breviora, rarius pilosa. Calyx viridis, pilis rarioribus rectis conspersus, acutus, ore barbatus. Corolla vix calyce longior, alba.”—Schreb. *l. c.*

T. CÆLESTE (Schreb. *Unilab.* 39).

Polium, &c. Barr. *Icon.* 1081.

Hab. in Hispania : in præcelsis montibus regni Valentini, præcipue ad Carthusiam Porta Cæli dictam *Barrelier* (Schreber).

“ *T. capitulis terminalibus tomentosis, foliis linearibus integerrimis incanis, caule erecto.*

“ In multis cum priori et *T. valentino* convenit, ab utroque tamen satis diversum est. Caulis æque tenuis, tomento candicans. Folia sicut in hoc linearia, revoluta, obtusa, tomento pertenui subtus densiore incana, breviora tamen latiora ac præcedenti, integerrima, cum aliquibus tantum crenarum vestigiis. Capitula in summitate ramorum solitaria seu terna, quorum lateralia minora pedunculis brevibus horizontalibus non foliosis insident. Folia floralia inverse lanceata aut linearia sicut *T. valentino*, non ovata *T. angustissimi*, obtusa, tomentosa. Flos minor quam antecedentis. Calyx viridis magis, sed laxius tomentosus quam *T. angustissimo*, ore tomento repleto, dentibus triangularibus acutis, neque *T. valentini* modo lanceatis obtusis. Corolla parva, alba.”—Schreb. *l. c.*

These two latter species appear to be but one, at least as far as one may judge by Barrelier's figures; and, notwithstanding the entire leaves, I cannot help thinking they may be but a variety of *T. Polium*.

T. CYMOSUM (Pers. Syn. 112).

Hab. in Hispania prope Aranjuen *Thibaut* (Persoon).

"*T. floribus paniculato-cymosis, foliis linearibus dentatis, caule lanato-suffrutescente.*"—*Pers. l. c.*

T. MAJORANA (Pers. Syn. 112).

Hab. in Hispania *Thibaut* (Persoon).

"*T. spicis ovatis, pedunculis subcymosis, foliis linearibus margine revolutis, caule subfiliformi. A T. capitato (T. Polio angustifolio) omnino diversum videtur.*"—*Pers. l. c.*

The two last are also probably both of them referable to *T. Polium*.

Species omnino dubiæ.

T. SESSILIFOLIUM (Clarke's Trav. 4. 555).

Hab. in Bulgaria inter Constantinopolim et Rutschuk *Clarke*.

"*T. foliis hirsutis sessilibus obtusis inferioribus lanceolatis integerrimis superioribus bracteisque crenatis elliptico-lanceolatis, floribus axillaribus solitariis, pedunculis brevissimis.*

"*Caules erecti, lanati. Folia plus quam pollicaria. Flores pollicem longi, fauce barbati.*"—*Clarke l. c.*

T. UNDULATUM (Lour. Fl. Cochinch. 362).

Hab. in Cochinchina ad sepes *Loureiro*.

"*T. foliis oblongis undulatis subcrenatis, corymbo terminali.*

"*Caulis fruticosus, erectus, teres, 5-pedales, ramis patentibus. Folia ovato-oblonga, obtusa, undulata, subcrenata, glabra, opposita, petiolata. Flos pallidus, corymbo racemoso terminali. Corolla 5-fida, tubo brevi, laciniis obtusis, superioribus divaricatis. Stamina longissima, adscendentia. Semina 4, nuda, calyce persistente fota.*"—*Lour. l. c.*

T. THEA (Lour. Fl. Cochinch. 363).

Hab. in Cochinchina in dumetis *Loureiro*.

"*T. foliis ovato-lanceolatis, caule procumbente, pedunculis axillaribus trifloris.*

"*Caulis fruticosus, 8-pedalis, procumbens, glaber, inermis, teres, ramosus. Folia ovato-oblonga, acuta, integerrima, petiolata, glabra, opposita. Flos albus, axillaris, pedunculis trifloris. Stamina didynamica, corolla longiora. Stigma acutum, bipartitum. Semina 4, calyce fota.*"—*Lour. l. c.*

T. ROTUNDIFOLIUM (Poir. Dict. Suppl. 2. 767).

T. Commersonii. *Spreng. Syst. 2. 710.*

Hab. ad Buenos Ayres *Commerson* (Poiret).

"*T. foliis ovato-rotundis crenatis glabris longe petiolatis, spica terminali pauciflora, pedunculo longissimo, caule simplici tetragono.*

"*Caules erecti, simplices, tetragoni, herbacei, vix pedales. Folia distantia, glabra, opposita, inferiora rotundata, pollicaria, crenata, petiolis folio longioribus, superiora longiora, subovata, petiolis folio brevioribus. Pedunculus gracilis, termi-*

nalis, erectus, 4-pollicaris. Flores ad apicem in spica brevi dispositi, distantes, oppositi vel subverticillati, subsessiles. Calyx pubescens, acute 5-dentatus. Corollæ tubus subexsertus, labium cæruleum, lacinia media subemarginata, lateralibus obtusis."—*Poir. l. c.*

T. FASCICULATUM (*Poir. Dict. Suppl. 2. 767*).

Hab. . . . *Herb. Desfontaines* (*Poiret*).

"*T. caule fruticoso, foliis subfasciculatis angusto-linearibus glabris uno alterove dente subtuberculato, spica brevi terminali.*

"*Caules lignosi, fusci, glabri, teretes, ramosi. Ramuli brevissimi ad axillas orti, foliis confertis subfasciculatis sessilibus perangustis 6-8 lin. longis, ad margines interdum dente uno alterove brevi obtuso subtuberculatis. Flores sessiles, solitarii, oppositi vel subverticillati, in spica brevi laxa terminali dispositi. Bractæ ovatæ, mucronatæ, calyce longiores. Corollæ tubus ventricosus, exsertus. Limbus flavus videtur, lobis obtusis.*"—*Poir. l. c.*

These two plants have evidently no affinity to any known species of *Teucrium*.

Species e genere excludendæ.

T. CHAMÆPITHYS *Linn.* = *Ajuga chamæpithys*.

T. CHIUM *Poir.* = *Ajuga chia*.

T. FILIFORME *Poir.* = Ex ordine excludendum ob folia sparsa.

T. GENEVENSE *Crantz.* = *Ajuga genevensis*.

T. IVA *Linn.* = *Ajuga Iva*.

T. LÆVIGATUM *Russ.* = *Ajuga glabra*.

T. LAXMANNI *Murr.* = *Ajuga Laxmanni*.

T. MOSCHATUM *Mill.* = *Ajuga Iva*.

T. PYRAMIDALE *Crantz.* = *Ajuga pyramidalis*.

T. RHOMBIFOLIUM *Willd.* = *Hyptis canescens*.

T. SALICIFOLIUM *Linn.* = *Ajuga salicifolia*.

T. SIBIRICUM *Linn.* = *Nepeta Ucratica*.

CIV. AJUGA.

Ajuga et Teucris sp. *Linn. gen. 287.*

Phleboanthe. *Tausch.*

Bugula et Chamæpithys. *Tourn.*

Calyx ovato- vel globoso-campanulatus, subæqualis, 5-fidus vel 5-dentatus. Corolla tubo incluso vel exserto, intus sæpius piloso-annulato, recto vel spiraliter semi-torto, limbus bilabiatus, labio superiore brevi, sæpius brevissimo, leviter emarginato, inferiore elongato, patente, trifido, laciniis lateralibus oblongis, intermedia latiore, emarginata vel bifida. Stamina 4, adscendentia, e labio superiore sæpissime exserta, didynama, inferioribus longioribus. Antheræ subbiloculares, loculis divergentibus vel divaricatis, demum confluentibus. Stylus apice subæqualiter bifidus, stigmatibus minutis. Achenia reticulato-rugosa.—*Herbæ annuæ, perennes vel vix basi suffruticosæ, sæpe procumbentes vel adscendentes, nunc stoloniferæ. Verticillastri 2-multi-flori, densi, nunc omnes axillares, foliis floralibus caulinis conformibus, nunc superiores approximati, spicati, foliis floralibus minoribus vel difformibus.*

A genus found over nearly the whole of the old world and Australia, but there does not appear to be a single species indigenous to America.

CONSPECTUS SPECIERUM.

SECT. I. BUGULA. *Verticillastri 6-multi-flori.*

Stolones reptantes.

Folia subrotunda, grosse dentata vel lobata . . . 1. A. LOBATA.

Folia ovata vel obovata, integerrima vel sinuata . . . 2. A. REPTANS.

Stolones nulli.

Corollæ resupinatæ, tubo torto . . . 3. A. ORIENTALIS.

Corollæ tubus rectus.

Calyx semiquinquefidus, laciniis acutis.

Corollæ tubus exsertus.

Folia floralia lato-ovata, vel corollis breviora vel grosse dentata.

Folia floralia subintegerrima, tetragono-pyramidata, subimbricata . . . 4. A. PYRAMIDALIS.

Folia floralia plus minusve dentata vel remota.

Caulis erectus vel adscendens. Folia membranacea.

Planta sesquipedalis, fere glabra, foliis margine ciliatis . . . 5. A. CILIATA.

Planta $\frac{1}{2}$ -1-pedalis, glabra pilosa vel villosa . . . 6. A. GENEVENSIS.

Caulis basi procumbens. Folia crassa, subcoriacea vel dense villosa.

Planta parum villosa. Folia ovata, basi angustata. Verticillastri remoti . . . 7. A. REMOTA.

Planta villosissima. Folia lata. Verticillastri approximati . . . 14. A. BRACTEOSA.

Folia floralia oblonga, elongata, integerrima vel sinuata.

Herba suberecta, semipedalis. Corolla semipollicaris . . . 9. A. AUSTRALIS.

Herba procumbens, vix 2-3-pollicaris. Corolla pollicaris . . . 11. A. ACAULIS.

Corollæ tubus calyce brevior vel eum æquans.

Folia floralia corolla breviora . . . 15. A. DENSIFLORA.

Folia floralia corolla longiora.

Folia oblonga, angusta . . . 10. A. DIEMENICA.

Folia ovata.

Caulis erectus, rigidus . . . 8. A. OPHRYDIS.

Caules diffusi.

Verticillastri sexflori. Folia profunde sinuata . . . 12. A. SINUATA.

Verticillastri multiflora. Folia parum sinuata . . . 13. A. PARVIFLORA.

Calyx breviter quinque-dentatus, dentibus obtusis.

Caulis erectus. Folia ampla . . . 17. A. MACROSPERMA.

Caulis decumbens. Folia parva . . . 16. A. DECUMBENS.

SECT. II. CHAMÆPITHYS. *Verticillastri 2-flori, rarissime sub-4-flori. Corollæ labium superius brevissimum, truncatum (Gerontogæ).*

Folia integra, oblongo-elliptica vel ovata.

Caules glabri vel pubescentes.

Folia oblongo-lanceolata. Calyces vix 3 lin.

longi 20. A. SALICIFOLIA.

Folia ovato-elliptica. Calyces 6 lin. longi 21. A. CHAMÆCISTUS.

Caules pilis longis vestiti.

Calycis laciniae subæquales 18. A. LAXMANNI.

Calycis lacinia superior brevissima 19. A. OBLONGATA.

Folia dentata vel trifida, linearia lineari-oblonga vel cuneata.

Folia irregulariter dentata 22. A. IVA.

Folia apice cuneata, breviter trifida vel tridentata 23. A. TRIDACTYLITES.

Caules et folia pilosa vel hispida.

Folia floralia corolla (subpollicari) breviora 24. A. CHIA.

Folia floralia corolla (semipollicari) longiora 25. A. CHAMÆPITHYS.

Caules et folia glaberrima 26. A. GLABRA.

SECT. III. PSEUDANISOMELES. *Verticillastri 2-6-flori. Corollæ labium superius inferiore vix triplo brevius (Australasicæ).*

Folia floralia integerrima 27. A. VIRGATA.

Folia floralia tridentata 28. A. TRIDENTATA.

Species non satis nota 29. A. REPENS.

SECTIO I. BUGULA.

Verticillastri 6- vel sæpius multi-flori. Corollæ sæpius cæruleæ, roseæ, purpurascentes vel albidæ, nec flavæ.

1. A. LOBATA (Don! Prod. Fl. Napal. 108), stolonibus reptantibus, foliis longe petiolatis rotundatis grosse dentatis lobatisve glabriusculis.

Hab. in India orientali: in Napalia et Gossain Than Wallich! (h. s. sp. e Mus. Angl. Ind.)

Herba nunc fere glabra, sæpius pilis sparsis in ramos et folia hispidula. Stolones ex axillis foliorum inferiorum numerosi, elongati. Rami floriferi breves, adscendentes vel erecti. Folia 1-2-pollices diametro, basi nunc profunde cordata, nunc truncata vel cuneata; floralia inferiora caulinis conformia, superiora subsessilia, ovato-oblonga, grosse dentata. Florum spica interrupta, 1-3-pollicaris, laxiuscula. Verticillastri inferiores biflori, distantes, superiores subsexflori, approximati. Calyx 4-5-fidus, laciniis lanceolatis, acutis, foliaceis. Corolla pilosiuscula, cærulea? calycem triplo superans, tubo longe exserto recto basi intus nudo. Labium superius brevissimum, latum, obtusum, inferioris laciniae laterales oblongæ, media lata, emarginato-bifida, lobis divaricatis. Genitalia exserta.

2. A. REPTANS (Linn. Spec. 785), stolonibus reptantibus, foliis ovatis obovatisve integerrimis vel sinuatis, cauleque glabriusculis.

A. reptans. Hook. Fl. Lond. v. 2. ic. Eng. Bot. 7. t. 489.

Bugula reptans. Mænoch. Meth. 382.

Hab. in Europæ et in Asiæ mediæ herbidis: in Anglia! Scania Fries, Gallia! Germania! Hispania! Italia usque ad regnum Neapolitanum Tenore, in Tauria Bieberstein, in regione Caspica prope Lenkoran C. A. Meyer. (v. v. et h. s. sp.)

Stolones e basi tantum caulis orti et breviores, minus foliosi quam in *A. lobata*. Plantæ ex stolonibus ortæ, interdum estolonosæ. Rami floriferi erecti, simplices, semipedales vel rarius subpedales, glabri vel faciebus oppositis pubescentibus. Folia radicalia et stolonum petiolata, caulina subsessilia, obtusa, basi angustato-cuneata, petiolis dilatatis, utrinque viridia, glabra vel pilis paucis sparsis hispidula; floralia sessilia, latius ovata, basi rotundata, inferiora flores longe superantia, superiora gradatim minora, sæpe colorata, suprema vix calyces excedentia. Verticillastri infimi remoti, supremi in spicam approximati, 6-20-flori. Bracteæ subnullæ. Calyces subsessiles, late campanulati, sæpius hispidi, profunde 5-fidi, laciniis lanceolatis angustis. Corolla cærulea vel rarius rosea, calyce duplo triplove longior. Tubus rectus, longiuscule exsertus, intus basi piloso-annulatus, limbi labium superius brevissimum, latum, inferioris lobi laterales ovati, intermedius breviter emarginatus. Stamina breviter exserta.

3. *A. ORIENTALIS* (Linn. Spec. 785), estolonosa, adscendens, piloso-lanata, foliis ovatis grosse sinuato-dentatis basi angustatis, floralibus sessilibus lato-ovatis inciso-lobatis dentatisve flores superantibus, verticillastris distantibus vel supremis approximatis, corollæ tubo torto exserto intus nudo limbo resupinato.

Bugula obliqua. *Mæench. Meth.* 382.

Bugula orientalis. *Mill. Dict. n.* 5.

Hab. in Europæ et Asiæ regionis Mediterraneo-Ponticæ collibus et pascuis siccis: in Hispania *Pavon!* Sicilia *Swainson!* Italia australi *Tenore*, in ins. Sami *Durville*, ad montis Hæmi radices *Sibthorp!* prope Damascum *Olivier!* in Cappadocia *Tournefort!* in Tauria *Durville!* *Bieberstein*, *Beaupré!* &c., et Caucaso *Bieberstein!* (*h. s. sp.*)

Caules pedales et sæpe longiores, erecti vel adscendentes, simplices, uti folia pilis longis laxis dense lanati vel (in exemplaribus cultis) rarius glabrati. Folia radicalia interdum petiolata, margine sinuata, caulina sessilia, basi angusta; floralia latiora, basi semiamplexicaulia, sæpius grosse triloba, lobis dentatis sinuatisve, flores amplectentia, omnia crassiuscula, rugosa, mollia. Flores in verticillastro numerosi. Calyces subsessiles, profunde 5-fidi, laciniis anguste lanceolatis linearibusve pilosissimis. Corolla cærulea; tubus calyce subdimidio longior, intus nudus; limbus *A. reptantis*, sed ex torsione tubi exacte resupinatus.

4. *A. PYRAMIDALIS* (Linn. Spec. 785), estolonosa, piloso-hispida vel glabra, erecta, foliis caulinis approximatis vix petiolatis obovatis, floralibus lato-ovatis flores amplectentibus tetragono-pyramidatis supremis sæpe coloratis omnibus integerrimis vel obscure sinuatis, verticillastris superioribus vel omnibus spicatis, corollæ tubo recto exserto intus annulato.

A. pyramidalis. *Sm. Eng. Bot.* 18. t. 1270.

Bugula pyramidalis. *Mill. Dict. n.* 3.

Teucrium pyramidale. *Crantz. Stirp. Austr.*

Hab. in Europæ montosis umbrosis: in Scotia *Hooker!* per omnem Sueciam excepta Scania et Oelandia *Fries*, et Lapponia? *Wahlenberg*, in Pyrenæis! Cebennis! Alpibus Galloprovinciæ! Helvetiæ! Pedemontii! montibus Aprutii *Tenore*, in Hæmo monte *Sibthorp*, et in Caucaso orientali *C. A. Meyer.* (*v. v. et h. s. sp.*)

Hæc species exemplaribus minoribus *A. orientalis* valde affinis est, sed floribus constanter distinguitur. Caulis erectus vix semipedalis, simplex, interdum uti folia fere glaber, sæpius plus minusve pilosus. Folia radicalia plerumque $1\frac{1}{2}$ -2-pollicaria; floralia (qui partem fere totam plantæ occupant) inferiora pollicaria, superiora gradatim minora, at omnia sæpius ultra $\frac{1}{2}$ -pollicaria. Flores in verticillastro numerosa. Calyx 5-fidus, laciniis lanceolatis pilosis. Corollæ tubus calyce duplo longior; labium superius evidentius quam in *A. reptante*. Stamina exserta.

March 1834.

4 x

5. *A. CILIATA* (Bunge! Enum. Pl. Chin. Bor. 51), estolonosa, caule erecto elongato glabro, foliis caulinis remotis ovatis grosse dentatis membranaceis glabriusculis margine ciliatis, floralibus infimis conformibus supremis ovatis acutis integerrimis subcoloratis ciliatis, verticillastris spicatis vel infimis remotis, corollæ tubo longe exserto.

Hab. in Chinæ borealis humidis umbrosis ad rivulum Ssi-jui-ssy *Bunge!* (*h. s. sp. comm. a cl. Bunge.*)

Vix ac ne vix statura et characteribus datis ab *A. genevensi* differt. "Planta 1½-pedalis, caule subinde ramoso, internodiis inferioribus longissimis, foliis inferioribus minoribus. Flores spicati in apice caulis, cærulei. Bracteæ purpurascens," characteres forsitan ad habitationem attribuendæ.

6. *A. GENEVENSIS* (Linn. Spec. 785), estolonosa, caule erecto piloso, foliis caulinis oblongo-ellipticis subovatisve basi angustatis inferioribus petiolatis, floralibus ovatis cuneatisve superioribus flores vix æquantibus vel brevioribus omnibus sæpius grosse dentatis membranaceis utrinque viridibus sparse pilosis, verticillastris superioribus spicatis infimis distantibus, corollæ tubo longe exserto.

Teucrium genevense. *Crantz. Stirp. Austr.*

A. alpina. *Linn. Mant.* 80. *Eng. Bot.* 7. t. 477.

A. foliosa. *Tratt. Arch. der Gewächsk.* 1. 25. ic. ?

A. rugosa. *Host.! Fl. Austr.* 2. 120.

A. multiflora. *Bunge! Enum. Pl. Chin. Bor.* 51.

A. pyramidalis. *Bieb. Fl. Taur.-Cauc.* 2. 32. *Lasch. in Linnæa*, 5. 443. et *Auct. plur. non Linn.*

A. alpestris. *Dumort. Florul. Belg.* 42. ?

Bugula alpina. *All. Fl. Ped.* 1. 45.

Bugula decumbens. *Mill. Dict. n.* 2.

Bugula genevensis. *Mill. Dict. n.* 4.

Hab. in Europæ et in Asiæ Rossicæ graminosis montosis, &c.: in Anglia? Suecia australi *Fries!* Gallia! Germania! omni Italia usque ad regnum Neapolitanum *Tenore*, in Tauria et Caucaso *Bieberstein*, *C. A. Meyer*, et montibus Talüsche *C. A. Meyer*, et in China septentrionale haud procul ab urbe Tschan-pchin-shou *Bunge!** (*v. et h. s. sp.*)

Planta statura, villositate, et forma foliorum valde variabilis ut interdum vix ab *A. pyramidalis* distinguenda, nonnunquam etiam *A. australis* et *remotæ* affinis. In forma vulgatiore caules adscendentes, ½-1-pedales, pilis longis laxis villosi. Folia radicalia parva, caulina inferiora majora, superiora gradatim minora, omnia flaccida, plus minusve pilosa, et dentibus vel lobis paucis obtusis donata; floralia omnia calycibus longiora, superiora basi amplexicaulia, sæpe colorata. Calyces semi-5-fidi, hirsuti. Corollæ cærulescentes, rosæ vel albidæ; tubum constanter exsertum intus annulatum vidi, limbi labium superius breve emarginatum vel subintegrum.

7. *A. REMOTA* (Benth. in Wall. Pl. As. Rar. 1. 59), estolonosa, basi ramosa, procumbens, ramis floriferis adscendentibus villosis, foliis oblongo-ellipticis ovatisve basi angustatis, floralibus ovato-cuneatis flores superantibus, omnibus crassiusculis subcoriaceis villosis grosse paucidentatis, verticillastris remotis vel supremis approximatis, corollæ tubo exserto labii inferioris lacinia infima vix emarginata.

Hab. in Indiæ orientalis provinciis Oude, Hurdwar, et Kamaon *Wallich!* ad Nagkanda in jugo Himalayano *Royle!* Deyra Dhoun

* Confer Drees in *Linnæa*, 3. 78. et *Lasch* in *Linnæa*, 5. 443.

Royle, Jacquemont ! Berali et Mirpour Jacquemont ! (h. s. sp. e Mus. Angl. Ind., et e Mus. Par.)

Ab affini *A. genevensi* satis diversa videtur characteribus datis. Verticillastri multiflori. Calyx post anthesin inflato-globosus. Corollæ violaceæ, roseæ vel albidæ, graciliores et minores quam in *A. genevensi* cæterum conformes. Labium inferius breviter emarginatum.

8. *A. OPHRYDIS* (Burch. ! Cat. Geogr. Pl. Afr. Austr. n. 3700), estolonosa, erecta, piloso-hispida, foliis obovatis basi angustatis, floralibus ovatis flores æquantibus vel vix superantibus, omnibus crassiusculis subcoriaceis glabris villosisve grosse paucidentatis, verticillastri infimis remotis supremis spicatis, corollæ tubo calycem æquante labii inferioris lacinia intermedia bifida.

Hab. ad Caput Bonæ Spei *Burchell ! Masson ! &c. (v. s. sp. in herb. Hooker, Burchell, et Banks.)*

A. genevensi et *A. remotæ* affinis, ab hac caule erecto hispido, foliis floralibus latis, et floribus duplo majoribus differt, ab illa foliis crassis coriaceis, ab utraque corollæ forma. Flores cærulei ? corollæ tubus intus annulatus, genitalia exserta.

9. *A. AUSTRALIS* (Br. ! Prod. 503), estolonosa, caulibus adscendentibus vel erectis pubescentibus villosulis glabratisve, foliis anguste oblongis basi angustatis integerrimis sinuatisve crassiusculis subvillosis, floralibus conformibus flores superantibus, verticillastri inferioribus remotis supremis subspicatis, corollæ tubo exserto labii inferioris lacinia intermedia emarginato-bifida.

Hab. in Nova Hollandiæ herbidis *R. Brown !* ad Portum Jackson et in interiore *A. Cunningham !* in planitiibus Goulburn *Fraser !* inter tropica *Banks, &c.,* et in insula Percy *A. Cunningham ! (v. s. sp.)*

Hæc etiam species varietatibus nonnullis *A. genevensis* similis est, differt foliis præsertim floralibus angustioribus longioribusque integrioribus, caule foliis calycibusque (dum pubescunt) pilis brevibus subadpressis, nec longis laxis indutis, dentibus calycinis brevioribus. Corolla cærulea, tubo calycem dimidio vel duplo longiore intus annulato.

10. *A. DIEMENICA*, estolonosa, humilis, adscendens, foliis anguste oblongis basi angustatis petiolatis vel superioribus sessilibus integerrimis vel sinuato-dentatis crassiusculis, floralibus conformibus flores longe superantibus, verticillastri omnibus remotis, corollæ tubo calycem æquante labii inferioris lacinia intermedia breviter emarginata.

Hab. in Terra Van Diemen *Lawrence ! Gunn ! &c. (h. s. sp. comm. a cl. Lindley.)*

Planta humilior, villosior, et minus erecta quam *A. australis*. Folia, præsertim floralia, sæpius dentata. Corollæ minores. Tubus, ut in *A. australi*, intus piloso-annulatus. An hujus mera varietas ?

11. *A. ACAULIS* (Brocchi. Osserv. sulli Abruz. 22), estolonosa, caule brevissimo, foliis oblongis obovatisve basi longe angustatis vix sinuato-dentatis, floralibus conformibus minoribus omnibus glabris pilosisve, verticillastri paucis condensatis, corollæ tubo recto longe exserto.

A. decumbens. Ten. ! Fl. Nap. non Thunb.

A. Tenorii. Presl. Fl. Sicul. xxxvi.

Hab. in Italiæ australis pascuis montosis editioribus, in Aprutia, et

Calabria *Tenore!* Gussone! *Requien!* &c., in Sicilia *Presl.*, &c. (*h. s. sp. comm. a cl. Requien et Gussone.*)

Caules foliis breviores, vix bipollicares, ramosi, sæpius hispidi, interdum glabri. Folia approximata, radicalia 1½-2-pollicaria vel longiora; floralia angustiora, sæpius integerrima, corollas subæquantia. Verticillastri pauciflori. Calyces sessiles, vix semiquinquefidi, laciniis angustis. Corolla fere pollicem longa, tubo intus pilis paucis semiannulato; labii inferioris laciniæ laterales intermedia parum breviores, dimidio angustiores.

12. *A. SINUATA* (Br.! *Prod.* 503), "hirsuta, caule multiplici procumbente, foliis radicalibus petiolo longioribus floriferisque sinuatis basi attenuatis, verticillis sexfloris, calycibus hirsutissimis, corollis pilosiusculis."—*Br. l. c.*

Hab. in Nova Hollandia ad Coal River prope Portum Jackson *R. Brown!* (*v. s. sp. in herb. Brown.*)

Species distinctissima habitu *A. parvifloræ* affinis. Flores parvi cærulei.

13. *A. PARVIFLORA* (Benth. in Wall. *Pl. As. Rar.* 1. 59), estolonosa, diffusa, ramis adscendentibus villosis, foliis lato-ovatis basi in petiolum angustatis sinuato-subdentatis, floralibus ovatis subintegerrimis flores superantibus omnibus crassis villosissimis subcanescentibus, floribus minutis, corollæ tubo calyce brevior.

Hab. in Indiæ orientalis montibus Himalayanis: in Kamaon *Wallich!* ad Simlah *Dom. Dalhousie!* Mussooree *Royle!* *Jacquemont!* ad Illahabad et in valle Jumna *Jacquemont!* (*h. s. sp. e Mus. Angl. Ind. et e Mus. Par.*)

Folia pilis longis albidis mollibus vel (in foliis) rigidiusculis villosissima; radicalia magna, rosulata. Caules plures, 2-6-pollicares. Folia caulina et floralia semipollicaria vel inferiora pollicaria, suprema vix 4-lin. longa, at flores subsuperantia. Verticillastri multiflori. Calyces vix 2½ lin. longi. Corolla pallide violacea, tubo intus exannulato, labium inferius calycem parum excedens, vix labio superiore duplo longius. Genitalia inclusa. Filamenta brevissima.

14. *A. BRACTEOSA* (Wall.; Benth. in Wall. *Pl. As. Rar.* 1. 59), estolonosa, diffusa, ramis adscendentibus villosis, foliis lato-ovatis basi in petiolum angustatis, floralibus conformibus flores superantibus omnibus sinuato-dentatis subintegerrimisve crassis villosissimis subcanescentibus, verticillastris supremis spicatis, floribus parvis, corollæ tubo exserto.

A. integrifolia. *Hamilt.!* in *Don. Prod. Fl. Nepal.* 108.

Hab. in Napalia *Wallich!* *Hamilton!* (*h. s. sp. e Mus. Angl. Ind.*)

Habitu et villositate *A. parvifloræ* affinis, at elatior, ramosior. Folia caulina et floralia majora, verticillastri magis approximati. Flores duplo majores, at dimidio minores quam in *A. genevensi*. Corolla cærulescens? tubo intus piloso-annulato, labio superiore brevissimo. Stamina exserta.

15. *A. DENSIFLORA* (Wall.; Benth. in Wall. *Pl. As. Rar.* 1. 59), estolonosa, humilis, adscendens vel erecta, villosa, foliis oblongis ovatisve subcrenatis basi angustatis crassis villosis, floralibus superioribus vel omnibus floribus brevioribus, verticillastris spicatis vel infimis vix remotis, corollæ tubo calycem æquante labii lacinia intermedia vix emarginata.

Hab. in Napalia *Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Affinis *A. parvifloræ* et *A. bracteosæ*. A priore differt floribus majoribus, verticillastris approximatis, ab altera specie foliis floralibus minoribus integerrimis, ab utraque caule erectiore infra spicam subnuda. Folia ad basin caulis approximata. Rami floriferi 4-6-pollicares. Corollæ labium superius brevissimum, inferius magnitudine *A. genevensis*.

16. *A. DECUMBENS* (Thunb. Fl. Japon. 243?), estolonosa, procumbens, foliis subovatis grosse dentatis incisive basi angustatis glabris villosulisve, floralibus infimis subconformibus superioribus vel omnibus bractæformibus flore brevioribus, verticillastris spicatis vel infimis paucis axillaribus distantibus, calycis dentibus obtusiusculis, corollæ tubo incluso vel breviter exserto.

Hab. in Indiæ orientalis montibus Napalensibus et Kamaonensibus *Wallich!* ad portum Kheeree et in Deyra Dhoun *Royle!* in China *Sir G. Staunton!* (*h. s. sp. e Mus. Angl. Ind.*)

Inter *A. densifloram* et *A. macrospermam* characteribus quasi media, habitu ab utraque diversa. Spica sæpius 3-4-pollicaris, verticillastri globosi. Folia floralia suprema parva, anguste lanceolata, reflexa. Corollæ laciniae 4 superiores oblongæ, erectæ, fere æquales, infima duplo longior. Genitalia exserta. Achenia valde rugosa.

17. *A. MACROSPERMA* (Wall.; Benth. in Wall. Pl. As. Rar. 1. 58), estolonosa, erecta vel adscendens, ramosa, foliis caulinis amplis ovatis grosse dentatis basi longe angustatis membranaceis glabris vel parce pilosis, floralibus infimis subconformibus supremis vel omnibus bractæformibus flore brevioribus, verticillastris spicatis vel infimis subremotis dentibus calycinis obtusis, corollæ tubo breviter exserto.

Hab. in Indiæ orientalis montibus Punduanis et ad Taong Dong montem *Avæ Wallich!* (*h. s. sp. e Mus. Angl. Ind.*)

Caulis 1-2-pedalis, paniculato-ramosus. Folia inferiora longe petiolata, limbo 2-4-pollicari. Spicæ 3-6-pollicares. Folia floralia inferiora caulinis conformia at minora, superiora ovato-lanceolata, integerrima, bractæformia. Calyx maturitate turbinatus, dentibus brevibus obtusissimis. Corolla parva, tubo elongato, ad medium inflato, intus annulato, labio superiore oblongo apice bifido, inferiore vix duplo longiore, laciniis lateralibus oblongis, media latiore. Achenia valde reticulata.

SECTIO II. CHAMÆPITHYS.

Verticillastri 2-rarissime sub 4-flori. Corollæ roseæ vel flavæ, labio superiore brevissimo, truncato.

18. *A. LAXMANNI*, caule adscendente piloso-lanato, foliis sessilibus oblongis ellipticisve obtusis integerrimis pubescentibus pilosisve, floralibus conformibus, verticillastris bifloris, calycibus amplis semi-5-fidis laciniis oblongis obtusiusculis subæqualibus, corollæ tubo incluso.

Teucrium Laxmanni. Linn. Syst. Veg. 439.

Phleboanthe Laxmanni. Tausch. in Bot. Zeit. 1828. 1. 323.

Hab. in Europa austro-orientali et Asia media: in Hungariæ Comitatu Veszprimiense *Lang!* Transylvania *Reichenbach*, in Bessarabia *Tar-*

dieu ! Tauria Beaupré ! Caucaso orientali atque Iberia Bieberstein. (h. s. c. et v. s. sp.)

Caules simplices, parum ramosi, 1-2-pedales, crassi, pilis longis laxis vestiti. Folia subbipollicaria, amplexicaulia, inferiora basi angustata, superiora rotundata; floralia omnia flores superantia. Calyces sessiles, pilosissimi, virides, laciniis tubo subæquilongis, inter se fere æqualibus vel 2 lateralibus parum longioribus, supremo subbreuiore. Corolla lutea, fere pollicaris. Tubus brevis, intus pilis longis annulatus. Labium superius fere evanidum et sæpe breviter fissum. Labium inferius usque ad lacinias laterales angustum, erectum, tubum elongatum supra fissum æmulans, laciniæ laterales oblongæ, erectæ, intermedia stipitata, latissima, reflexo-patens, emarginato-bifida, lobis rotundatis. Genitalia lacinias laterales corollæ subæquantia.

19. *A. OBLONGATA* (Bieb. Fl. Taur. Cauc. Suppl. 388), caule suberecto pilosissimo, foliis subsessilibus anguste oblongis obtusis integerrimis piloso-hirtis, floralibus conformibus, verticillastris bifloris, calycis dente supremo minuto, inferioribus tubo subæquilongis, corollæ tubo breviter exserto.

A. salicifolia. Stev. Mem. Soc. Nat. Cur. Mosq. 3. 265. sec. Bieb. non Linn.

Hab. in Caucaso *Prescott !* in sabulosis ad Cyrum inferiorem circa ostia rivi Mussa etiam circa Sallian *Bieberstein*, in Oriente inter Bagdad et Aleppo *Olivier ! (h. s. sp. comm. a cl. Prescott, et Moretti, et v. s. sp. in herb. plur.)*

Ab *A. Laxmanni* differt statura foliisque dimidio minoribus pilis rigidioribus, et calycis forma. Caulis ramis oppositis, longis, plerumque paniculatus (Bieb.) Corolla lutea vix minor, tubo longiore, labium superius truncatum vix emarginatum, laciniæ laterales, parum latiores quam in *A. Laxmanni*.

20. *A. SALICIFOLIA* (Schreb. Unilab. 26), herbacea, pubescens, foliis oblongo-lanceolatis obtusiusculis integerrimis subdentatisve basi in petiolum brevem angustatis, calycibus tomentoso-hirtis breviter pedicellatis, dentibus oblongis obtusis supremo brevioribus.

A. salicifolia. Sibth. et Sm. ! Fl. Gr. 6. 22. t. 526.

Teucrium salicifolium. Linn. Mant. 80.

Hab. in Oriente inter Smyrnam et Bursam *Sibthorp !* in Tauria *Beaupré !* circa prædium Asamat *Bieberstein*, in Armenia *Tournefort ! (v. s. sp. in herb. plur.)*

Ab affine *A. oblongata* differt præcipue pubescentia brevi, rigida. Habitus et flores fere idem. Calyces majores.

21. *A. CHAMÆCISTUS* (Ging. ! in Herb. DC. MSS.), suffruticosa, ramis albidis glabriusculis, foliis sessilibus ovato-ellipticis obtusis integerrimis utrinque viridibus tenuissime pubescentibus glabrisve, calycibus pedicellatis basi attenuatis dentibus oblongis obtusis æqualibus.

Hab. in Persia *Olivier ! (v. s. sp. in herb. DC.)*

Species distinctissima. Folia pollicaria, calyces semipollicares, basi tomentoso-pubescentes, albidi, dentibus viridibus glabris. Corollæ tubus breviter exsertus.

22. *A. IVA* (Schreb. Unilab. 25), suffruticosa, diffusa, piloso-hispida, foliis oblongo-linearibus grosse dentatis subintegerrimisve margine subrevolutis, floralibus conformibus, verticillastris 2-6-floris, corollæ tubo exserto.

Teucrium Iva. Linn. ! Spec. 787.

Teucrium moschatum. Lam. Fl. Fr. 2. 409.

A. moschata. Schreb. *Unilab.* 26.

Moscharia asperifolia. Forsk. *Fl. Ægypt. Arab.* 154. *sec Willd. at ibi non invenio.*

β floribus luteis.

A. pseudo-Iva. DC. *Fl. Fr. Suppl.* 395.

A. Iva. Sibth. et Sm. ! *Fl. Græc.* 6. 22. t. 525.

Hab. in Europæ australis et Africæ borealis regione Mediterranea ad Mogador *Broussonet* ! in ins. Canariensibus *Masson* ! in Hispania *Pavon* ! &c., Gallia australi ! Corsica *Requien* ! Sicilia *Gussone*, Italia a Pedemontio ! ad regnum Neapolitanum *Tenore* ! in Archipelagi Græci insulis : necnon in Creta et Zacyntho *Sibthorp* ! *Sieber* ! *Durville* ! &c., in Dalmatia *Biasoletto* ! var. β cum α mixta, at in australioribus vulgatiores. (*v. v. et h. s. sp.*)

Rami numerosi, cæspitiosi, foliosi, 2-6-pollicares. Pili totius plantæ rigidi. Folia circiter pollicaria, basi angustata. Calyces sessiles, subglobosi, dentibus tubo brevioribus, inter se subæqualibus vel supremo parum brevioribus. Corolla rosea vel lutea, 8-10 lin. longa, extus pubescens, patens, tubo intus piloso-annulato, calyce subduplo longiore ; labium superius truncatum vix emarginatum, inferioris laciniæ laterales oblongæ, intermedia latissima, omnes patentes. Filamenta pilosa. Var. β nonnisi corollæ colore differt. Utraque varietas interdum, at non constanter nec ad omnes horas, moscham redolet. In floribus vernalibus etiamsi fertilibus corolla plerumque abortiva est.

23. *A. TRIDACTYLITES* (De Ging. MSS.), suffruticosa, diffusa, piloso-hispida, foliis cuneato-oblongis apice profunde tridentatis trifidisve laciniis brevibus ovato-oblongis, floralibus conformibus superioribus corolla brevioribus, verticillastris bifloris, corollæ tubo exserto.

Hab. in Palæstina : in summo monte Sanctæ Catherinæ *N. Bové* ! ad pedem montis Libani *Meryon* ! (*h. s. sp. a cl. Bové lect., et v. s. sp. in herb. DC.*)

Habitus *A. Ivæ*, differt foliorum forma et floribus minoribus. Corolla rosea videtur. Filamenta pilosiuscula.

24. *A. CHIA* (Schreb. *Unilab.* 25), herbacea, erecta, piloso-hispida, foliis profunde trifidis, lobis linearibus integerrimis trifidisve, floralibus conformibus corolla subbrevioribus, verticillastris bifloris distinctis.

A. chia. Sibth. et Sm. ! *Fl. Græc.* 6. 21. t. 524.

A. chamæpithys. Guss. *Fl. Sic. Prod.* 2. 66.

Teucrium chium. Poir. *Dict. Suppl.* 2. 772.

β minor.

Hab. in Europæ et Asiæ regionis Mediterraneo-Ponticæ collibus siccis, apricis : in Sicilia *Gussone*, Italia australi *Tenore*, in ins. Chio *Tournefort* ! Archipelagi Græci insulis frequens etiam in Asia minore *Sibthorp* ! in Tauria frequens *Durville* ! β in Syria prope Aleppo *Russell* ! (*v. s. sp.*)

Ab *A. chamæpithyo* vix differre videtur nisi corollis duplo longioribus et caule foliisque hirsutioribus. Var. β *A. tridactyliti* affinis est.

25. *A. CHAMÆPITHYS* (Schreb. *Unilab.* 24), herbacea, diffusa, pilosa, foliis profunde trifidis, lobis linearibus integerrimis trifidisve, floralibus conformibus flores superantibus, verticillastris bifloris.

Teucrium chamæpithys. Linn. ! *Spec.* 787.

Ajuga chamæpithys. Eng. Bot. 2. t. 77.

Bugula chamæpithys. Scop. Fl. Carn. n. 718.

Chamæpithys vulgaris. Link. Handb. 453.

Chamæpithys trifida. Dumort. Florul. Belg. 42.

Hab. in Europæ mediæ et australioris, necnon Asiæ Ponticæ siccis, sterilibus, ad vias, etc. : in Anglia australi ! Gallia ! Germania ! Hispania ! Italia septentrionali ! in Aprutii montibus *Tenore*, in insulis Archipelagi Græci frequens, necnon in Peloponneso et monte Olympo Bithyno *Sibthorp*, in Tauria et Caucaso communis *Bieberstein*, C. A. *Meyer*, et in montibus *Talüsch* C. A. *Meyer*. (v. v. et h. s. sp.)

Caules numerosi, basi procumbentes, ramosissimi, pilis longis albis mollibus in omni parte, vel sæpius in faciebus oppositis vestiti. Rami floriferi, apice adscendentes, subsimplices, foliosissimi. Folia ad medium trifida, laciniis folio parti inferiori (vel petiolo dilatato) æquilatis et subæquilongis, viridia, margine subrevoluta, et sæpius pilis longis ciliata. Calyces sessiles, nervis pilosis, laciniis tubo parum brevioribus lanceolatis acutis. Corolla flava, extus pubescens, vix 6-7 lin. longa. Tubus intus pilosus, breviter exsertus. Labium superius truncatum vix emarginatum, inferioris laciniae laterales oblongæ, intermedia obovata emarginata. Filamenta pilosiuscula.

26. *A. GLABRA* (Presl. Fl. Sicul. xxxvi. ?), herbacea, glabra, foliis basi dilatatis profunde trifidis lobis linearibus integerrimis, floralibus conformibus, verticillastris bifloris, dentibus calycinis lanceolatis obtusis glabris.

Teucrium lævigatum. Russ. ! Nat. Hist. Alep. 2. 255.

Hab. in regione Mediterranea : in Sicilia *Presl.*, in Syria prope Aleppo *Russell* ! (v. s. sp. in herb. *Banks*.)

Ab *A. chamæpithyo* differt præcipue glabritie, et floribus duplo majoribus, ab *A. chia* glabritie.

SECTIO III. PSEUDANISOMELES.

Verticillastri 2-6-flori. Corollæ labium superius inferiore vix triplo brevius. Species Australasicæ.

The two species of this section have the calyx and corolla, and nearly the habit, of *Anisomeles*, with the anthers of *Ajuga*. The achenia in the only specimen I have seen, are not in a state to determine whether they are smooth or rugose.

27. *A. ? VIRGATA*, caulibus elongatis virgatis subsimplicibus, foliis oblongis, caulinis grosse serratis subcanescenti-villosis, floralibus integerrimis calyces superantibus, verticillastris distantibus 2-6-floris longe racemosis, corollæ tubo incluso.

Hab. in Nova Hollandia interiore ad flumen Lachlan *A. Cunningham* ! (v. s. sp. in herb. *Cunningham et Hooker*.)

Caules 1-1½-pedales, pubescentia brevi subcanescentes. Folia fere *Anisomelis*, inferiora petiolata, superiora sessilia, basi angustata, rugosula, nervosa, 1-2-pollicaria ; floralia semipollicaria, obtusa, basi vix angustata, villosiora, 1-nervia. Verticillastri fere omnes circiter semipollicem distantes. Calyces subsessiles, fere *Anisomelis*. Corolla etiam *Anisomelis*, labio superiore erecto lato emarginato inferioris tertiam partem æquante, sed antheræ omnes æquales ut in *Ajuga*, loculis confluentibus subuniloculares, nec dimidiatæ. Achenia non vidi.

28. A. ? TRIDENTATA, caulibus elongatis virgatis simplicibus, foliis caulinis oblongis petiolatis, floralibus sessilibus ovatis apice trifidis flores superantibus, verticillastris distantibus 2-6-floris longe racemosis, corollæ tubo exserto.

Hab. in Nova Hollandia interiore ad ripas fluminis Lachlan A. *Cunningham* ! (v. s. sp. in herb. *Cunningham et Hooker*.)

Exemplar Hookerianum e caule constat fere sesquipedali, subglabro, foliis inferioribus deficientibus. Verticillastri majorem partem caulis occupant, circiter semipollicem distantes, fere omnes biflori. Folia floralia semipollicaria. Calyces subsessiles, glabri vel tenuiter pubescentes, campanulati, dentibus 5 fere ad medium attingentibus. Corollæ tubus calyce fere duplo longior, fauce valde dilatata. — Species habitu A. *virgatæ* valde affinis, sed calycibus minoribus, corollis majoribus et foliis floralibus tridentatis distincta.

Species non satis nota.

29. A. REPENS (Roxb. Fl. Ind. 3. 3).

Hab. in Indiæ orientalis provincia Chittagong *Roxburgh*.

“ Biennis, procumbens, villosa. Folia oblongo-lanceolata basi in petiolum angustata grosse et inæqualiter serrata. Spicæ terminales cylindricæ. Bracteæ oblongæ ventricosæ 5-floræ (verticillo 10-floro). — Species robusta diffusa, ramis inferioribus sæpe radicanibus.” — *Roxb. l. c.*

Species e genere excludendæ.

A. AFRICANA Pers. = *Teucrium africanum*.

A. CAPENSIS Pers. = *Teucrium capense*.

A. DISTICHA Roxb. = *Anisomeles ovata*.

A. FRUTICOSA Roxb. = *Anisomeles malabarica*.

A. FURCATA Link. = *Craniotome versicolor*.

CV. ? ANISOMELES.

Nepetæ et Ballotæ sp. Linn.

Ajugæ sp. Roxb.

Anisomeles. R. Br. Prod. Fl. Nov. Holl. 503.

Calyx ovato-tubulosus, suberectus, æqualis, 5-dentatus. Corolla tubo calycem æquante intus piloso-annulato, limbo bilabiato, labio superiore erecto oblongo integro, inferiore majore patente, lobis lateralibus ovatis obtusis, medio emarginato-subbifido. Stamina 4, adscendentia, exserta, didynama, inferioribus longioribus. Antheræ per paria approximatae, staminum longiorum dimidiatae, inferiorum biloculares, loculis parallelis transversalibus. Stylus apice subæqualiter bifidus. Achenia sicca, lævia. — Herbæ (vel suffrutices ?) habitu fere *Stachydum* sectionis *Eriostachydis*. Verticillastri nunc dense multi-

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4 Y

flori racemosi, nunc laxissimi e cymis longe pedunculatis constantes, nunc axillares, pauciflori. Flores purpurascetes.

A genus extending over the whole of the southern and tropical regions of Asia, from the foot of the Himalaya to the Indian Archipelago, and thence to the northern coast of New Holland.

The *Anisomeles* being usually said to be intermediate between *Ajuga* and *Teucrium*, and there being certainly a great disproportion between the two lips of the corolla, I had without much consideration referred them to the *Ajugoideæ*. But, on examining them more closely, they differ from the remainder of the tribe in the smooth achenia and the general form of the corolla, as well as in habit. It appears, therefore, that this genus would be much better placed amongst the *Stachydeæ* very near, if not next, to the genus *Stachys*.

1. *A. MOSCHATA* (Br. Prod. 503).

Hab. in Nova Hollandia tropica *R. Brown*.

"*A. foliis ellipticis cauleque cinereo-pubescentibus, verticillis paucifloris, calycibus cinereo-viridibus glandulis manifestis.*"—*Br. l. c.*

2. *A. INODORA* (Br. Prod. 503).

Hab. in Nova Hollandia tropica *R. Brown*.

"*A. foliis ellipticis glabriusculis subtus punctatis, verticillis remotis, calycibus viridibus glandulis manifestis.*"—*Br. l. c.*

3. *A. HEYNEANA* (Benth. in Wall. Pl. As. Rar. 1. 59), glabra vel tenuissime pubescens, foliis remotis oblongo-lanceolatis basi angustatis, florum cymis longe pedunculatis secundis paucifloris, dentibus calycinis lanceolatis acutis.

Hab. in Indiæ orientalis Peninsula? *Heyne!* in insulæ Salcette montium excelsiorum sylvis umbrosis ad Templa Kennerg *Jacquemont!* (*h. s. sp. e Mus. Angl. Ind. et v. s. sp. in herb. Mus. Par.*)

Rami elongati, tenues, acute tetragoni. Folia minora et tenuiora quam in cæteris speciebus, utrinque angustata, serrato-crenata, utrinque pallide viridia, nervis sæpius tenuissime pubescentibus; floralia minora, suprema minuta. Pedunculi inferiores ultrapollicares, superiores breviores. Cymæ ad apices pedunculorum unilaterales, 6-10-floræ. Bracteæ parvæ, subulatæ. Calyces erecti, 4 lin. longi, subsessiles, forma fere *A. ovata*, sed tenuiores subglabri.

4. *A. SALVIÆFOLIA* (Br. Prod. 503?*), villosa, foliis oblongo-ellipticis lanceolatisve, verticillastris densis plurifloris, dentibus calycinis brevibus lato-lanceolatis acutis.

Hab. in Nova Hollandia tropica *R. Brown*, ad Port Essington et prope Cupang in ins. Timor *Herb. Hooker!* ad flumen Brisbane *Fraser!* (*v. s. sp. in herb. Endlicher et Hooker.*)

Valde affinis *A. intermediæ* et *A. ovata* mollissimæ, differt statura minore, ramis tenuioribus, calycibus minoribus, dentibus tubo quadruplo brevioribus.

5. *A. OVATA* (Br. in Ait. Hort. Kew. ed. 2. 2. 364), hirsuta, rarius subglabra, foliis ovatis acuminatis rotundatisve basi rotundatis vel

* "*A. incano-tomentosa, foliis lanceolatis supra mollibus lævibus, subtus rugosis, verticillis multifloris, calycis glandulis tomento sepultis.*"—*Br. l. c.*

truncato-subcordatis, verticillastris multifloris densis, dentibus calycinis lanceolatis acutis.

A. ovata. Jacq. *Fil. Ecl.* 1. t. 86. Hook. *Bot. Misc.* 2. 358. t. 19.

A. disticha. Heyne! Roth. *Nov. Pl. Sp.* 254.

Nepeta amboinica. Linn. *Suppl.* 273.

Ballota disticha. Linn.! *Mant.* 83.

Ajuga disticha. Roxb.! *Fl. Ind.* 3. 2.

Nepeta disticha. Blume *Bijdr.* 823.

Marrubium indicum. Burm.! *Fl. Ind.* 127. et *Thes. Zeyl.* t. 71.

Monarda zeylanica. Burm.! *Fl. Ind.* 12.

Ballota mauritiana. Pers.! *Syn.* 2.

Tsjadaen. Rheede *Hort. Malab.* 10. 175. t. 88.

β *mollissima*, villosior, foliis magis acuminatis, floralibus inferioribus ovatis flores superantibus.

A. mollissima. Wall.! *Cat. Herb. Ind. n.* 2039.

Nepeta indica. Linn.! *Sp. Pl.* 799.

Hab. in Asiæ calidiore ruderalis præsertim humidis, ad vias, &c.: in India Orientali fere omni vulgaris Wallich! Wight! Royle! &c., in ins. Ceylona Macrae! Burmann! &c., Mauritio Telfair! Bojer! in regno Burmannico Wallich! China Millett! ins. Java Burmann! Leschenault! Blume, Timor Gaudichaud! β cum α vulgaris scil. in Peninsula Wight! Sillet et regno Burmannico Wallich! India centrali Jacquemont! China Millett! ins. Moluccanis Durville! (*h. s. sp.*)

Annua? Caules erecti, 2-3-pedales, ramosi, acute tetragoni, pilis reflexis, præsertim ad angulos villosi. Folia inferiora longiuscula, superiora brevius petiolata, forma valde variabilia, nunc fere rotunda, obtusissima, late crenata, sæpius ovata, plus minusve acuminata, omnia molliter rugosa, utrinque viridia et plus minusve villosa, suprema minora; floralia bractæformia vel infima caulinis subconformia. Verticillastri sæpius ultra-10-flori, interdum 30-40-flori secundi vel subæquales, inferiores distantes, supremi interrupte spicati. Bractæ parvæ, oblongæ, lanceolatæ vel subulatæ. Calyx 3-5 lin. longus, erectus, tubulosus, hirsutus, dentibus vix tertiam partem longitudinis occupantibus. Corolla purpurascens, labio intensiore; tubus calycem æquans, intus transverse annulatus; labium inferius supra pilosum. Filamenta pilosa. Odor *Stachydis sylvaticæ*.

6. *A. CANDICANS* (Benth. in Wall. *Pl. As. Rar.* 1. 59), canescenti-pubescens, foliis ovato-oblongis lanceolatisve basi angustatis, verticillastris multifloris laxiusculis, dentibus calycinis lanceolatis acutis.

Hab. in regno Burmannico ad ripas fluminis Irawaddi prope Yenanghuen Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Habitus *A. malabaricæ*. Folia parum latiora, utrinque uti caules et calyces pubescentia brevissima candicantia. Cymæ ut in *A. malabarica* sæpe elongatæ. Flores minus numerosi. Calyx elongatus, dentibus *A. ovatæ*.

7. *A. INTERMEDIA* (Wight. MSS.), tomentoso-pubescens vel subvillosa, foliis ovato-lanceolatis basi cuneatis, verticillastris multifloris densis vel cymis amplis demum elongatis, bracteis subulatis, calycis hirsuti dentibus basi lanceolatis apice subulatis mollissimis.

Hab. in Indiæ orientalis peninsulæ montibus Madurensibus Wight! et ad Peradenia insulæ Ceylon Macrae? (*h. s. sp.*)

Exemplaria perpaucâ vidi habitu et characteribus inter *A. ovatam* et *malabaricam* quasi media, huic tamen propinquiora. Differunt foliis latioribus, superficie minus tomentosa et dentibus calycinis latioribus. An *A. malabaricæ* varietas? vel forsâ inter hanc et *A. ovatam* hybrida?

8. *A. MALABARICA* (Br. in Bot. Mag. 46. t. 2071), tomentoso-villosa, foliis oblongo-lanceolatis basi angustatis, verticillastris multifloris densis vel cymis amplis demum elongatis, foliis floralibus bracteis dentibusque calycinis subulatis mollissimis.

A. malabarica. Hook. Journ. Bot. 1. 225. t. 127.

Nepeta malabarica. Linn. ! Mant. 566.

Ajuga fruticosa. Roxb. ! Fl. Ind. 3. 1.

Stachys mauritiana. Sieb. ! Fl. Maur. Exs.*

Hab. in Asiæ calidioris pratis humidis ad rivulos, &c., in India orientalis Peninsula Commerson ! Leschenault ! Wight ! &c., in regno Burmannico Wallich ! in ins. Mauritio Sieber ! Bojer ! &c. Penang Wallich ! et Java Blume. (h. s. sp. e Mus. Angl. Ind. &c.)

Caulis erectus, basi fruticosus (?) 2-5-pedalis. Rami numerosi, obtusi, tetragoni, nunc tomento brevi canescentes, sæpius lana densa obtecti. Folia breviter petiolata, 2-4-pollicaria, obtusa, in parte superiore serrato-crenata, basi integerrima, in pagina inferiore (uti rami) tomentosa vel lanata, superiore brevius tomentosa vel molliter pubescente; floralia sæpius bractæformia. Verticillastri ampli parum distantes, in racemo simplici semipedali dispositi. Cymæ fructiferæ sæpe laxè dichotomæ, 20-50-floræ. Bractæ calyces fere æquantes. Calyces subsessiles, erecti, molliter pilosissimi vel lanati. Corolla *A. ovata*, rosea vel purpurascens, fauce intus pilosa. Filamenta pilosa.—Odor *Stachydis sylvaticæ*.

CVI.? CRANIOTOME.

Craniotome. Reichb. Icon. Bot. Exot. 1. 39.

Calyx ovatus, post anthesin subglobosus, æqualis, 5-dentatus, fauce coarctata intus villosa. Corolla tubo exserto, limbo bilabiato, labio superiore brevissimo, concavo, integro, inferiore longiore patente trifido, laciniis lateralibus brevibus. Stamina 4, adscendentia, didynama, inferioribus longioribus, corolla breviora. Antheræ biloculares, loculis demum divaricatis. Stylus apice subæqualiter bifidus, stigmatibus minutis. Achenia sicca, lævia.

A single Indian genus, which, as well as *Anisomeles*, had perhaps better be removed to *Stachydeæ*.

1. *C. VERSICOLOR* (Reichenb. l. c. t. 54).

Nepeta versicolor. Trev. in Nov. Act. Acad. Nat. Cur. 13. 183.

Anisomeles nepalensis. Spreng. Syst. Veg. 2. 706.

Ajuga furcata. Link. Enum. Hort. Berol. 2. 99.

Hab. in India orientali: in Napalia, Kamaon et Sillet Wallich ! in calidis regionis Thonna Jacquemont ! (h. s. sp. e Mus. Angl. Ind. et e Mus. Par.)

Herba erecta, pluripedalis, ramosa. Rami graciles, patentim pilosi. Folia petiolata, ovata, acuminata, crenata, basi cordata, utrinque piloso-hispida; floralia

* Synonymon *Carim Tumba* (Rheede Hort. Malab. 10. 185. t. 93.), quod sæpe huc citatur videtur ad *Stemodiam menthastrum* referendum.

infima caulinis conformia, superiora minora, suprema minuta, bracteæformia. Cymæ laxæ, multifloræ, pedunculatæ, racemosæ, racemis gracilibus paniculatis. Flores minuti, numerosi, eleganter colore albo roseo et purpureo varietati. Bracteæ minutæ. Calyces pubescentes, dentibus conniventibus. Corollæ tubus calyce circiter duplo longior, rectus, erectus, gracilis, albus, limbus tubo brevior, roseus vel purpureus.

CVII.? CYMARIA.

Cymaria. Benth. in Bot. Reg. 15. ad calc. n. 1292.

Calyx subglobosus, sub 10-nervius, æqualis, 5-dentatus, fauce coarctata intus nuda. Corolla tubo subexserto recto, limbo bilabiato, labiis subæqualibus, superiore erecto integro fornicato, inferiore patente trifido, lacinia intermedia integra. Stamina 4, sub labio superiore adscendentia, didynama, inferioribus longioribus. Antheræ biloculares, loculis demum divaricatis. Styli lobus superior brevissimus. Stigmata minuta. Achenia sicca, rugosa.—Frutices. Flores parvi cymosi, cymis racemosis.

This genus resembles *Craniotome* and *Plectranthus* in habit. The form of the corolla would place it near the former genus amongst *Stachydeæ*, yet the rugose achenia, less deeply separated than in most *Labiata*, seem to indicate its station as lying between *Ajugoideæ* and *Verbenaceæ*. The fruit, by separating into two double achenia, taken in combination with the monsters observed in *Salvia cretica*, *Coleus aromaticus*, *Sideritis canariensis*, &c., affords the explanation of the true nature of the fruit of *Labiata*, and further confirms the close affinity of the order to *Verbenaceæ*.

It is an East Indian genus.

1. *C. DICHOTOMA* (Benth. in Wall. Pl. As. Rar. 1. 64), foliis ovatis supra glabriusculis vix rugosis, cymis laxis paniculatis, pedunculo gracili petiolo 3-4-plove longiore.

Hab. in regno Burmannico ad Taong Dong et Segain Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

Frutex 2-3-pedalis, ramis quadrangulis tomentosis. Folia breviter petiolata, utrinque angustata, crenata, juniora subtus tomentosa. Pedunculi axillares, oppositi, 1-2-pollicares, dichotome ramosi. Flores parvi, laxè cymosi, cymis racemoso-paniculatis. Bracteæ minutæ, setaceæ. Calyces vix pubescentes, demum submembranacei, fauce coarctata, dentibus breviter ovatis acutis, demum patulis.

2. *C. ELONGATA* (Benth. in Wall. l. c.), foliis rugosis utrinque tomentosis, cymis densis breviter pedunculatis racemo terminali elongato laxo.

Hab. in regno Burmannico ad Taong Dong Wallich! (*h. s. sp. e Mus. Angl. Ind.*)

A *C. dichotoma* differt ramis elongatis dense tomentosis, foliis brevius petiolatis, sæpius basi rotundatis, nervoso-rugosis, dense tomentosis, supra viridibus, subtus canescentibus. Cymæ florum numerosæ in racemum elongatum terminalem dispositæ. Flores majores quam in *C. dichotoma*. Calyces dense tomentosi, glanduloso-punctati, dentibus demum patulis.

Genus quoad Tribum incertum.

CVIII. HOSLUNDIA.

Hoslundia. Vahl. Enum. Pl. 1. 212.

“Calyx tubulosus 5-dentatus. Corolla ringens labio superiore concavo. Stamina 4, 2 fertilia. Semina 4 intra calycem baccatum.”
— *Vahl. l. c.*

1. *H. OPPOSITA* (*Vahl. l. c.*).

H. opposita. Palis. de Beauv. Fl. Ow. et Ben. 1. 53. t. 52.

Hab. in Guineæ dumetis Aquapim *Thonning (Vahl).*

“*H. foliis oblongo-ovatis oppositis.*

“Frutex orgyalis ramosissimus. Rami brachiati, inter folia linea villosa. Folia odorata, bipollicaria et ultra, extrorsum remote serrata, basi integerrima. Calyx tubulosus, striatus. Corolla alba, calyce fere duplo longior; faux compressiuscula; limbi labium superius erectum, ovatum, gibbum, inferius hians trifidum recurvum. Stamina 2 brevissima, vix longitudine faucis, antheris minutissimis sterilibus; 2 corolla longiora antheris reniformibus fuscis. Germen quadripartitum. Stylus filiformis, longitudine staminum fertilium; stigma bifidum. Bacca spuria e calyce facta, magnitudine Ribeos, subrotunda, 10-angulata, dentibus calycis umbilicata, aurantia, pubescens, intus cava. Semina 4, ovata, in fundi calycis.”—
Vahl. l. c.

2. *H. VERTICILLATA* (*Vahl. Enum. Pl. 1. 213.*).

Hab. ad Senegal *Dupuis (Vahl.)*

“*H. foliis lanceolatis ternis.*

“Caulis fruticosus ramosus. Rami tetragoni, striati, leviter pubescentes, superne canescentes. Folia petiolata, indivisa, sesquipollicaria, utrinque attenuata, serrata, basi apiceque integerrima, supra glabra, avenia, obsolete-nervosa, subtus pallidiora, nervoso-subvenosa, nervis venisque majoribus canescentibus, adpersa, punctis resinosis lucidis ope lentis videndis. Petioli breves, pubescentes. Panicula minus ramosa quam in antecedente, terminalis, erecta, brachiata; pedunculi partiales 3-4 similes vel 2 reflexi, reliqui patentes; pedicelli oppositi, patentissimi. Bractea minuta, subulata sub ramificationibus. Flores parvi, extus villosa-canescens, primo intuitu *Cornutiæ* similes. Calyx et reliquæ partes fructificationis ut in præcedente.”—
Vahl. l. c.

Genera *BARBULA* *Lour.*, *CALLIPELTIS* *Bunge*, et *PHRYMA* *Linn.*, ab auctoribus nonnullis ad *Labiatas* relata referentur ad *Verbenaceas*.

SUPPLEMENTUM

SISTENS ADDENDA, CORRIGENDA, ET EMENDANDA.

OCIMUM.

Lege *Ocimoideæ*, *Ocimum*, &c. nec *Ocymoideæ*, *Ocimum*, &c.

Pag. 1. et
seq. passim.

1. O. CANUM.

O. incanescens. Mart. in Spix. und Mart. Reise. in Bras. 2. 787.

p. 4.

O. hispidulum. Schum. ! Pl. Guin. in Act. Acad. Hafn. 4. 40.

Hab. in ins. Mauritio *Bory de St. Vincent* ! in Africa tropica ad sinum Delagoa *Forbes* ! in Guinea *Thonning* ! in America tropica prope Soteropolim provinciæ Brasiliensis *Bahia Martius* !

2. O. BASILICUM.

Excl. Syn. *O. hispidulum* Schum, ad *O. canum* referendum.

Hab. var. α in India orientali septentrionali ad ripas fluminis Jumna *Royle* ! in Rajpoutana et circa Poonah *Jacquemont* ! ad Sennaar in Arabia *N. Bové* ! β prope Saharampur *Royle* ! : est varietas hortensis.

In locis siccis calidioribus perenne evadit, et etiam basi fruticosum, præsertim var. α .

5. O. SELLOI.

p. 6.

Hab. prope Bahia *Blanchet* !

7. O. GRATISSIMUM.

p. 7.

Hab. in ins. Mauritio *Perrottet* !

8. O. SUAVE.

O. holosericeum Breit. !

p. 8.

Hab. in Brasiliæ provincia Maragnaniensi, in ruderatis et ad ædes prope cataractam fluminis Itapicuru *Martius* !

11. O. BURCHELLIANUM deleatur.

Having again examined the specimens upon which I had at first established this species, and compared them with others since communicated to me by Mr. Burchell, I can no longer find any certain characters to distinguish them from *O. serpyllifolium*. Mr. Burchell's specimens, No. 2812, appear certainly to be the same as Forsköl's. The *O. fruticosum* Burch. Cat. Geogr. n. 2160, is also very closely allied. It is less canescent, and the calyx is glabrous, with the lower teeth longer and more pointed ; but as the specimens are in a much further advanced state than the others, I am inclined to think that these differences are all owing to age.

14. O. LANCEOLATUM deleatur, est certe *O. Basilicum* γ *glabratum*. p. 9.

- p. 11. 18. *O. CARNOSUM*.
 Hab. in provinciæ Entre Rios humidis *Tweedie*! in Nova Hispania? *Moçino et Sessé*!
23. *O. MICRANTHUM*.
- p. 13. *O. montanum*. *Hook. Bot. Mag.* 57. t. 2996.
25. *O. INCANESCENS* deleatur, est enim *O. canum*.
- p. 15. 33. *O. SUFFRUTICOSUM* deleatur, est *Orthosiphon glabratus*.
- p. 18. *O. HOLOSERICUM* est *O. suave*.

GENIOSPORUM.

- p. 20. 2. *G. STROBILIFERUM*.
 Hab. in toto jugo Himalayano *Royle*!
- p. 21. 6. *G. PROSTRATUM*.
Mentha ocymoides. *Lam. Dict.* 4. 103.
Elsholtzia ocymoides. *Pers. Syn.* 2. 114.

MOSCHOSMA.

- p. 24. 1. *M. POLYSTACHYUM*.
Plectranthus parviflorus. *Br. Prod.* 506? (*fide specim. Baueriano in Herb. Endlicher*) non *Willd.*
Plectranthus micranthus. *Spreng. Syst.* 2. 691. *supra* 38?
 Hab. in Arabia ad Senaar *N. Bové*! in Nova Hollandia Tropica *Bauer*! (*v. s. sp. in herb. Endlicher.*)
- 1*. *M. AUSTRALE*, caule acute tetragono angulis lævibus, foliis ovatis vel ovato-lanceolatis pubescentibus, verticillastris laxè 6-10-floris distantibus, stylo apice bifido.
Plectranthus moschatus. *Br. Prod.* 506. *supra* 38.
Lumnitzera moschata. *Spr. Syst.* 2. 687.
 Hab. in Nova Hollandia Tropica *Bauer*! (*v. s. sp. in herb. Endlicher.*)
- Vix ac ne vix a *M. polystachyo* differt foliis pubescentibus, racemis longioribus laxioribus, calycis dentibus inferioribus angustioribus et stylo profundius fisso.

ORTHOSIPHON.

- p. 26. 1. *O. RUBICUNDUS*.
 Hab. ad portum Kheeree ad introitum in Deyra Dhoun *Royle*!
2. *O. VIRGATUS*.
- p. 27. Hab. in montibus circa Mohun *Jacquemont*!
- 4*. *O. PALLIDUS* (*Royle*; *Benth. in Hook. Bot. Misc.* 3. 370), glaber vel tenuissime pubescens, caule adscendente, foliis petiolatis ovatis obtuse et grosse subinciso-dentatis basi integerrimis cuneatis et in petiolum decurrentibus, corollæ parvæ tubo calycem subæquante, fauce subæquali, staminibus corolla brevioribus.

Hab. in India orientali : ad ripas fluminis Jumna *Royle* ! in arenosis Djamon regni Cashmeriani et in arvis Bogun *Jacquemont* ! in Peninsula Belanger ! (*h. s. sp. comm. a cl. Royle et e Mus. Par.*)

Affinis *O. tomentosus*. Habitu *Ocimum adscendens*, foliis *Ocimum carnosum* quodammodo refert, et, per anthesin, flores primo intuitu *Ocimis* affiniores quam *Orthosiphonibus* videntur, sed forma labii inferioris, genitalia et calyx fructifer omnino *Orthosiphonis* sunt. Planta humilis basi ramosa, florifera sæpe vix bipollicaris, fructifera semipedalis vel parum altior. Rami acute tetragoni. Folia crassiuscula, $\frac{1}{2}$ -1-pollicaria et longiora, pallide viridia. Spicæ subsimplices breves. Flores magnitudine *Ocimi diffusi*. Corollæ labium inferius superiori longius, concavum. Calyx fructifer elongatus, pedunculo recurvo ei æquali, deflexus, tubulosus, subincurvus, glaber, dente supremo ovato concavo-replicato breviter decurrente, lateralibus brevibus latis acutis, infimis subulatis.

5. *O. GLABRATUS*.

p. 28.

Ocimum Thonningii (n. 6). *Schum. ! Pl. Guin. in Act. Acad. Hafn. 4. 43.*

Ocimum suffruticosum. *Schum. ! l. c. Suppl.*

Hab. in Africa occidentali tropica *Thonning* !

PLECTRANTHUS.

7. *P. ROTUNDIFOLIUS*.

p. 34.

Nepeta madagascariensis. *Lam. Dict. 1. 712 ?*

8*. *P. OVATUS*, tenuiter pubescens, caule herbaceo erecto, foliis breviter petiolatis ovatis acuminatis crenatis basi rotundatis supra scabris, floralibus bractæformibus, racemis laxis paniculatis, verticillastris æqualibus sub-10-floris, calycibus fructiferis nutantibus ovatis incurvis striatis reticulatis tenuiter pubescentibus dente supremo ovato acuto inferioribus lanceolatis acutis.

Ocimum gratissimum. *Forsk ! Fl. Ægypt. Arab. 110. non Linn.*

Hab. in Arabiæ Felicis montibus *Forsköhl ! (v. s. sp. in herb. Vahl.)*

A. Plectranthis e sectione *Coleoides* diversus foliorum forma ; cæterum habitu quodammodo *P. cordifolium* refert. Racemus *P. australis*. Flores *P. fruticosi*, sed corolla supra brevissime gibba nec calcarata.

10. *P. MOLLIS* deleatur, est *P. cordifolius*.

11. *P. CORDIFOLIUS*.

Ocimum molle. *Ait. Hort. Kew. ed. 1. v. 2. 322.*

Plectranthus mollis. *Spr. Syst. 2. 690.*

Hab. in jugo Himalayano passim *Royle ! Dom. Dalhousie ! Jacquemont ! &c.* p. 36.

16. *P. PARVIFLORUS*.

p. 37.

P. paniculatus. *Jacq. Fragm. 62. t. 91.*

18. *P. MADAGASCARIENSIS*.

Ocimum hadiense. *Forsk. ! Fl. Ægypt. Arab. 109.*

Plectranthus Forskölei. *Vahl. ! Symb. 1. 44. non Willd.*

p. 38.

20. *P. FORSTERI*.

Loco *v. s. c. lege v. s. sp.*

March 1835.

4 z

19*. *P. SIEBERI*, caule herbaceo procumbente pubescente, foliis breviter petiolatis ovatis obtusiusculis basi cuneatis grosse crenatis subincisis crassiusculis pubescentibus, floralibus subnullis, racemis laxis simplicibus, verticillastris 6-floris, calycibus pubescentibus fructiferis declinatis pedicello subbrevioribus incurvis striatis dente supremo rotundato acutiusculo vix decurrente inferioribus lateralibus lanceolatis infimis setaceis, corollis calyce duplo longioribus.

Hab. in Nova Hollandia tropica *Sieber!* (v. s. sp. in herb. *Endlicher.*)

Radix apice incrassata. Species *P. madagascariensi*, *P. hirta*, et *P. Forsteri* affinis, et inter hunc et istos habitu et characteribus media. Corollae lacinia infima elongata, concava.

21. *P. MICRANTHUS* deleatur, est *Moschosma polystachyum*.

22. *P. MOSCHATUS* ad *Moschosma* amandetur.

p. 41. 28. *P. WIGHTII*.

Excl. var. β ad *P. nigrescentem* referendam.

Varietatem (?) alteram in herbario Hookeriano, ex ins. Ceylona vidi cui panicula ampla ramosissima, rami filiformes et folia hispida. An species propria?

28*. *P. NIGRESCENS*, caule herbaceo erecto ramoso, foliis petiolatis lato-ovatis basi cordatis rotundatis vel angustatis, paniculis racemisve multifloris, calycibus fructiferis declinatis ovatis incurvis striatis profunde bilabiatis, labio superiore truncato breviter tridentato inferiore bifido dentibus ovatis, corollis declinatis supra vix gibbis, tubo calyce duplo longiore, staminibus exsertis.

P. Wightii β . *supra* 41.

Hab. in Ceylonæ montibus *Walker! Macrae!* (h. s. sp. comm. a *cl. Hooker.*)

Uti *P. Wightii* variat hirsutie et foliorum forma. Ab hac specie differt præcipue calycis forma. Racemi interdum subsimplices at, cymis ramosis, paniculæformes.

29. *P. STRIATUS*.

Hab. in Mussooree *Royle! Deyrah Dhoon Jacquemont!* (var. *hispidior.*)

p. 42. 31. *P. GERARDIANUS*.

Hab. in Sansedarra et Deyrah Dhoon *Royle!* inter Pechana et Thonna, et inter Carli et Candala *Jacquemont!*

Folia sæpe minora quam in *P. striato*. Corolla alba tenuissime purpureo-punctata. Planta tota sæpius glaberrima.

32. *P. COETSA*.

Hab. ad Simlah *Dom. Dalhousie!* in Mussooree et montibus versus Cashmeriam *Royle!* in fruticetis et ad sepes Indiæ Orientalis (septentrionalis?) communis *Jacquemont!* in Peninsula (montibus?) *Wight!*

p. 43. 35. *P. RUGOSUS*.

Hab. frequens in Jugo Himalayano usque ad urbem Cashmere *Royle! Dom. Dalhousie! Jacquemont! &c.*

38. *P. TERNIFOLIUS.*

p. 44.

Hab. in Emodi valle Rama Serai *Royle!* in collectione Jacquemontii deest.

39*. *P. DUBIUS* (Vahl.! MSS.), caule erecto ramoso pubescente, foliis ovatis crenatis basi cuneatis angustatisve rugosis, floribus laxepaniculatis, calycibus fructiferis erectis campanulatis cano-pubescentibus æqualiter 5-dentatis.

Hab. in Japonia *Thunberg!* (v. s. sp. in herb. Vahl.)

A *P. amethystoide* differt foliis angustioribus rugosis subtus venosissimis tenuiter pubescentibus, et calycibus canescentibus.

39**. *P. INFLEXUS* (Vahl.! MSS.), glaber, caule erecto subsimplici, foliis ovatis acutis grosse dentatis basi longe angustatis, racemo laxo paucifloro, calycibus fructiferis erectis campanulatis glabris æqualiter 5-dentatis.

Ocimum inflexum. *Thunb. Fl. Jap.* 249.?

Hab. in Japonia *Thunberg!* (v. s. sp. in herb. Vahl.)

A *P. amethystoide* differt foliis angustioribus et racemo simplici paucifloro, sed exemplar in herbario Vahliano servatum vix jam floridum fuit.

COLEUS.

2. *C. BARBATUS.*

p. 49.

Excl. Syn. Forskölei et Vahlîi, ad *Plectranthum madagascariensem* referenda.

Hab. ad Kidarkonta in Gurwhal *Royle!* circa Poonah *Jacquemont!* p. 50.

5. *C. AROMATICUS.*

p. 51.

C. crassifolius. *Benth. in Wall. Pl. As. Rar.* 2. 15. et supra 52.

6. *C. CRASSIFOLIUS* deleatur, est *C. aromaticus.*

p. 52.

14. *C. PERSOONII.*

p. 55.

Exemplar *Colei* cujusdam huic valde affinis legit Hænke in insula Luçon, et mecum communicavit cl. Presl., sed exemplar valde mancum.

Ante 22. *C. MACROSTACHYDEM*, adde

p. 57.

§ 2. *Calycis dentes laterales acuti, supremum subæquantes, infimi longiores, basi cum lateralibus ultra medium se invicem connati.*

Ante 27. *C. GLABRATUM*, adde

p. 58.

§ 3. *Calycis dentes 4, inferiores subæquales, basi liberi vel vix connati.*

ANISOCHILUS.

1. *A. CARNOSUM.*

γ *glabrum.*

p. 60.

A. glaber. *Schrad. Ind. Sem. Hort. Gott.* 1833. p. 1.

Hab. in planitiebus Indiæ Orientalis commune *Royle!* *Jacquemont!* &c., γ in ins. Ceylon *Walker!*

4. *A. DYSOPHYLLOIDES.*

Hab. prope Coimbetour *Bélanger!*

PYCNOSTACHYS.

- p. 61. Hujus generis speciem alteram pulcherrimam legit cl. Ruppell, in Abyssinia.

PELTODON.

- p. 63. 2. *P. LONGIPES.*
Hab. ad Rio Grande *Tweedie!*

HYPTIS.

- p. 100. 78. *H. MULTIBRACTEATA.*
p. 101. Calyces fructiferi valde elongati, basi inflati.
p. 103. 86. *H. LAPPACEA.*
β hirsuta, capitulis plurimis axillaribus breviter pedunculatis.
Hab. *β* ad Rio Grande *Tweedie!*
- p. 120. 144. *H. CANESCENS.*
β arvensis, foliis vix canescentibus.
H. arvensis. *Pöpp. Pl. Chil. Exs.*
Hab. ad Pariahuanca in Peruvia *Mathews!* *β* in Peruvia *Pöppig!*
- p. 125. 158. *H. GRAVEOLENS.*
Loco *h. s. c.* lege *h. s. sp.*
159. *H. UMBROSA.*
Hab. in Peruvia ad Huanuco et Canta *Mathews!*
- p. 127. 165. *H. PECTINATA.*
p. 128. Hab. in Sennaar Arabiæ *N. Bové!*
- p. 130. 173. *H. VERTICILLATA.*
Stachys patens. *Swartz! Nov. Pl. Gen. et Sp. 88.*
174. *H. FASCICULATA.*
Hab. ad Porana prope Buenos Ayres *Tweedie!*
- p. 137. 194*. *H. BLANCHETI*, caule basi piloso (?), foliis petiolatis oblongo-ellipticis obtusis crenatis coriaceis utrinque glabris, panicula laxa ramosa glaberrima glauca, floribus versus apices ramorum approximatis, bracteis minutis subulatis, calycibus tubuloso-campanulatis incurvis ore obliquo dentibus latis acuminatis fructiferis valde auctis, corollæ tubo vix exserto.
Hab. in Brasilia prope Bahiam *Blanchet!* (*v. s. sp. in herb. DC.*)
Habitus *H. pruinosa*, sed præcipue foliis diversa. Pars caulis inferior in exemplari suppetente deest, sed petioli inferiores pilis nonnullis ciliati sunt. Folia tripollicaria et ultra, petiolo fere pollicari. Ramus inter folia glaucescit. Panicula minus ramosa, et flores numerosiores minus approximati quam in *H. pruinosa*. Calyx florifer pubescens, fructifer valde auctus, glaberrimus, parum reticulatus. Corolla *H. pruinosa*.

LAVANDULA.

10*. *L. PUBESCENS* (Decaisne! in Ann. Scienc. Nat. Par. 1834. p. 151. 2. 246), hirsuta, caulibus strictis, foliis pinnatisectis segmentis linearibus integris subincisisve, floralibus membranaceis calyces subæquantibus, spicis gracilibus, floribus solitariis oppositis.

Hab. in deserto Sinaico *N. Bové!* (*h. s. sp. a cl. Bové lectam.*)

Quasi media inter *L. multifidam* et *L. coronopifoliam*, et huic præsertim valde affinis est, differt hirsutie, caulibus magis foliatis, spicis densioribus, foliis floralibus majoribus.

11. *L. CORONOPIFOLIA.*

Loco hispidula lege glabra.

Hab. ad pedem montis Sinai *N. Bové!*

12. *L. BURMANNI.*

Hab. in India Orientali septentrionali circa Indor, Aurungabad, Drolulabad, et Ellora *Jacquemont!*

POGOSTEMON.

2. *P. PLECTRANTHOIDES.*

Wensea pyramidata. Wendl. Coll. Pl. 2. 26. t. 84.

In synonymo citato e Bot. Mag. loco 59. lege 60.

Hab. in ins. Mauritio *Herb. De Candolle!*

p. 153.

4. *P. PARVIFLORUM.*

p. 154.

Hujus varietatem legit cl. Jacquemont prope Saharunpur fere mediam inter hanc speciem et *P. glabrum*. Folia crassiuscula, glaberrima. Panicula molliter villosissima.

DYSOPHYLLA.

4. *D. CRUCIATA.*

p. 158.

Excl. syn. *Chotekia sericea* ad *D. quadrifoliam* referendum.

5. *D. QUADRIFOLIA.*

Chotekia sericea. Opiz et Corda in Bot. Zeit. 1830. 1. 35.

6. *D. VERTICILLATA.*

p. 159.

Hab. frequens in uliginosis ins. Goulburn ad oram septentrionalem Novæ Hollandiæ *A. Cunningham!*

8. *D. PUMILA.*

Hab. in Cashmeria *Jacquemont!*

ELSHOLTZIA.

1*. *E. LEPTOSTACHYA*, suffruticosa, erecta, foliis subsessilibus ovatis utrinque angustatis, floralibus bractæformibus membranaceis oblongis calyces æquantibus, spicis gracilibus elongatis interruptis, floribus minutis, corollis calyce subduplo longioribus.

Hab. in Cashmeria *Jacquemont!* (*v. s. sp. in herb. Mus. Par.*)

Affinis *E. polystachyæ*, et pariter siccitate rufescit; differt foliis dimidio

p. 161.

brevioribus et floribus. Verticillastri omnes distincti, parvi, densi, 10-20-flori. Spicæ canescentes, 2-4-pollicares.

p. 162. 4. *E. BLANDA*.

Aphanochilus blandus. *Bot. Mag.* 58. t. 3091.

p. 163. 7*. *E. INTEGRIFOLIA*, herbacea, pubescens, foliis breviter petiolatis oblongo-linearibus lanceolatisve obtusis integerrimis, floralibus bractæformibus ovatis floribus brevioribus, verticillastris interrupte spicatis.

Hab. in China *Sir G. Staunton!* (v. s. sp. in herb. *Banks et DC.*)

Habitu *E. pubescenti* et *E. mollissimæ* affinis, at foliis distinctissima. Spica tenuis, 2-3-pollicaris. Verticillastri inferiores distantes. Flores in verticillastro 6-10, sessiles. Calyces pubescentes, etiam fructiferi campanulati, dentibus brevibus ovatis. Corolla parva.

9. *E. ERIOSTACHYA*.

Hab. in valle Hyphaseos et ad rivulos Rici *Jacquemont!*

Corolla lutea.

9*. *E. Densa*, herbacea, pubescens, foliis petiolatis oblongo-lanceolatis, floralibus bractæformibus ovato-rotundatis floribus brevioribus, verticillastris densis imbricatis, spicis tomentoso-villosissimis, calycibus fructiferis inflato-globosis.

Hab. in India Orientali septentrionali: in glareosis ad Ovelia, Rici, et Yonnedeh-Seursing *Jacquemont!* (h. s. sp. e *Mus. Par.*)

E. eriostachydi valde affinis, sed minus villosa, folia angustiora longiora, spicæ densius lanatæ, et calyces fructiferi duplo majores. Corollæ purpurascentes. Achenia tenuiter pubescentia.

9**. *E. PUSILLA*, minima, subsimplex, subglabra, caule filiformi, foliis ovatis integerrimis, floribus paucis subcapitatis.

Hab. in Cashmeriæ herbosis altissimis trans Kioubrong *Jacquemont!* (h. s. sp. e *Mus. Par.*)

Herba erecta, 1-2-pollicaris. Foliorum caulinorum paria 1-2, distantia, floralium paria 1-2, approximata, caulinis subconformia. Flores minimi, oppositi, subsessiles. Calyx pubescens. Corolla calyce subduplo longior lutea. Stamina inclusa, 2 superiora minima vel abortiva. Antheræ orbiculares.

p. 164. 11. *E. CRISTATA*.

Hab. in montibus Asiæ mediæ: ab India Orientali ad Sibiriam communis videtur.

MENTHA.

p. 170. 1. *M. LAVANDULACEA*.

Hab. in humidis montis Sinai *N. Bové!* ad Caput Bonæ Spei *Burchell!*

Of this species and the *M. salicina* I have seen several single specimens differing from each other in some respects, but not all in a sufficiently perfect state to enable me to determine whether, in fact, they are but one species; or if they are really distinct, whether both grow at the Cape of Good Hope; or whether the North African ones alone should be referred to *M. lavandulacea*, and all the Cape ones be considered as belonging to *M. salicina*.

3. *M. TOMENTOSA*.

Hab. in Persia prope Teheran *Olivier!*

5. M. ROYLEANA.

Hab. in jugo Himalayano ad Simlah Dom. Dalhousie ! in valle p. 171.
Girri Jacquemont !

6. M. SYLVESTRIS.

β candicans.

M. sylvestris candicans. Reichb. Icon. Bot. Eur. 10. 28. t. 982.

M. sylvestris albida. Reichb. Icon. Bot. Eur. 10. 28. t. 983.

ϵ nemorosa.

M. sylvestris nemorosa. Reichb. Icon. Bot. Eur. 10. 28. t. 984.

η crispa.

p. 172.

M. emarginata. Reichb. Icon. Bot. Eur. 10. 27. t. 979.

M. undulata. Reichb. Icon. Bot. Eur. 10. 27. t. 980.

Hab. α in Cashmeria prope Banhatta Jacquemont ! in Italia australi Gussone ! δ in Cashmeria Royle ! circa Djonggui ad Kanum Jacquemont !

8. M. VIRIDIS.

p. 173.

β angustifolia.

p. 174.

M. Michellii. Reichb. Icon. Bot. Eur. 10. 27. t. 981. (inter α et β media.)

Varietas β autumnalis videtur et frequens in regione australiori occurrit. Folia ramulorum sæpe breviter petiolata, sed a M. piperita distinguenda est spicis elongatis gracilibus, verticillastris numerosis, &c.

10. LOCO M. PYRAMIDALIS (Ten.) ad M. aquaticam referendæ lege p. 175.
M. SUAVIS. (Guss. ! Pl. Rar. 387. t. 66.)

M. pubescens. Reichb. Icon. Bot. Eur. 10. 27. t. 978.

M. glomerulata. Jan !

Excl. Syn. M. emarginatæ Reichb. ad M. sylvestrem η referendum.

Hab. Parmæ Jan ! in Germania Rhenana prope Bruchsal, Mullheim, Neuenburg, &c. Lang (Reichenbach).

12. M. CITRATA.

p. 176.

Forsan melius ut M. aquaticæ varietas glaberrima habenda est.

13. M. AQUATICA.

α nemorosa.

M. citrata. Reichb. Icon. Bot. Eur. 10. 26. t. 977. vix Ehrh.

δ subspicata.

p. 177.

M. pyramidalis. Ten. ! Fl. Nap. 2. 33. t. 35.

M. palustris plicata. Reichb. Icon. Bot. Eur. 10. 26. t. 976.

In var. δ præsertim in ramis lateralibus, verticillastri sæpe fere omnes distantes, sed a M. arvensi distincta est ramis, saltem primariis, verticillastro terminatis nec excurrentibus.

14. M. ARVENSIS.

p. 178.

α sativa.

M. gentilis. Reichb. Icon. Bot. Eur. 10. 26. t. 974.

γ

M. rubra ocymiodora. Reichb. Icon. Bot. Eur. 10. 26. t. 975.

p. 179. *ζ vulgaris.*

Huc refertur var. : cum synonymis suis sequentibusque.

M. arvensis. Reichb. Icon. Bot. Eur. 10. 24. t. 968.

M. arvensis lanceolata. Reichb. Icon. Bot. Eur. 10. 24. t. 969.

M. arvensis parietariæfolia. Reichb. Icon. Bot. Eur. 10. 25. t. 970.

M. arvensis agrestis. Reichb. Icon. Bot. Eur. 10. 25. t. 971.

M. arvensi-plicata. Reichb. Icon. Bot. Eur. 10. 25. t. 972.

M. acutifolia. Reichb. Icon. Bot. Eur. 10. 25. t. 973.

p. 181. 15. *M. CANADENSIS.*

Vix non varietas *M. arvensis.*

16. *M. LAPPONICA.*

Hab. in Kamtschatka *Herb. Hooker!*

18. *M. DAHURICA.*

Exemplaria hujus plantæ quæ in herbariis pluribus vidi non spontanea sunt sed vel culta in Horto Gorenki, vel ex seminibus ex horto illo a cl. Fisher cum speciminibus anno 1822 missis, sub nomine *Menthæ ex Dahuria.* Exemplaria etiam Willdenowiana verosimiliter culta sunt, et idcirco habitatio hujus speciei incerta est.

p. 182. 20. *M. PULEGIUM.*

Occurrit etiam in America boreali.

LYCOPUS.

p. 186. 4. *L. EUROPÆUS.*

Excl. var. γ cum synonymo et habitationibus. Est enim species propria, *L. australis Br.*

Hab. var. α in Monte Libano *N. Bové!*

p. 187. 6*. *L. AUSTRALIS* (Br.! Prod. 1. 500), caule erecto glaberrimo vel pilis paucis hispido, foliis subsessilibus oblongo-lanceolatis utrinque angustatis argute dentatis supra vel utrinque glaberrimis lucidis vel subtus pubescentibus, verticillastris multifloris, calycibus quinquedentatis bracteisque acutissimis, staminum steriliū rudimentis capitatis, acheniis tubo calycis brevioribus.

L. europæus γ argutus, supra p. 186.

L. lucidus. Turczan.! MSS.

Hab. in Asia orientali et Australia: in Sibiria orientali *Turczaninow!* China *Sir G. Staunton!* in Nova Hollandia ad Portum Jackson et oram meridionalem *R. Brown*, et in Terra Van Diemen *Gunn!* *R. Brown.* (h. s. sp. comm. a cl. *Lambert, Bunge, et Lindley.*)

A *L. europæo* differt præter habitu staminum steriliū præsentia, quod observare nequivi in exemplaribus pessimis a me primum visis. Valde affinis est *L. sinuato*, a quo differt habitu, foliis subsessilibus et calycibus bracteisque acutioribus.

MERIANDRA.

p. 189. 2. *M. BENGHALENSIS.*

Salvia abyssinica. Br.! App. to Salt. Abyss.

In India omni colitur, sed sylvestris non occurrere videtur. In Abyssinia colligerunt *Salt et Rüppell*, verosimiliter indigenam.

SALVIA.

16*. *S. HYDRANGEA* (Herb. DC. MSS.), canescens, foliis pinna- p. 214.
tisectionis segmentis 3-4-jugis oblongis obtusis integerrimis utrinque
tenuiter pubescentibus, floralibus parvis deciduis, verticillastris 6-10-
floris, calycibus maximis glabris membranaceo-venosis coloratis, labio
superiore lato sinuato, inferiore bifido lobis ovato-rotundatis, corollis
vix exsertis.

Hab. in Persia *Olivier!* (v. s. sp. in herb. DC.)

Species pulcherrima, foliis distinctissima. Flores fere *S. acetabulosæ*. Verti-
cillastri superiores substeriles. Foliorum segmenta inferiora pollicaria, ultimum
majus, omnia pallida, crassiuscula, paucivenia, nec rugosa.

28. *S. NUBICOLA*.

p. 219.

Hab. ad Simlah *Dom. Dalhousie! Jacquemont!* frequens in pla-
nitie Cashmeriana *Jacquemont!*

Corolla flavescent, labio superiore purpureo-punctato.

29. *S. HIANIS*.

Hab. in Cashmeriæ herbosis præaltis circa Banhatti et ad Pyr
Pundjal *Jacquemont!*

Variat foliis basi truncatis vel cordatis. Corollæ tubus amplus, labia brevia.
Flores violaceo et albo variegati.

31. *S. VIRIDIS*.

p. 220.

Hab. in Hispania prope Malaga *Salzmann!* in Persia prope Tiflis
Steven!

33*. *S. MILTIORHIZA* (Bunge! Enum. Pl. Chin. Bor. 50), caule p. 222.
herbaceo erecto piloso, foliis petiolatis pinnatisectis segmentis 3-7 pe-
tiolatis ovatis crenatis ultimo majore vel bifido, floralibus bractæformi-
bus, racemis simplicibus, verticillastris multifloris laxis, calycibus cam-
panulatis, labio superiore acuto integro, inferiore breviter bidentato,
corollis calyce subtriplo longiore, tubo breviter exserto intus oblique
annulato, labiis ringentibus elongatis, superiore falcato compresso,
inferiore porrecto, lobis lateralibus oblongis erecto-patentibus medio
rotundato fimbriato, connectivis postice deflexis subdilatis extremitate
connexis.

Hab. in Chinæ borealis montosis umbrosis ad Zui-wey-schin et
Ssi-jui-ssy *Bunge!* (h. s. sp. comm. a cl. Bunge.)

Species pulchra characteribus pluribus distinctissima, habitu *S. Forskölei* affinis.
Radix miniatus. Caulis 2-3-pedalis. Folia ampla; segmenta plana, sparse hispida,
supra viridia, subtus pallidiora; petioli hirsuti. Flores magnitudine *S. Forskölei*.
Bractæ lanceolatae, pedicellis parum breviores. Pedicelli erecti, calyce parum
breviores. Calyces colorati, glabriusculi, subviscosi. Corolla cærulea, extus sub-
viscoso-pubescent. Styli lobus inferior elongatus, superior brevissimus dentiformis.

Hæc species calycis labio superiore integro et corollæ tubo intus annulato, ab
Æthiopide et *Hormino* recedit, connectivis postice deflexis subdilatis nec anthe-
riferis a *Drymosphace* differt; forsitan igitur sectionis propriæ typus.

36. *S. SYRIACA*.

p. 223.

Hab. in Persiæ monte Tcharapt inter Mianeh et Turkmanchah
Bélangier!

March 1835.

5 A

37. *S. ODORATA.*

Hab. prope Bagdad *Olivier!*

p. 224. 40. *S. SPINOSA.*

p. 225. Hab. in Persiæ monte Kaflancou in provincia Irak-adgim *Bé-
langer!*

40*. *S. PALÆSTINA*, caule herbaceo glanduloso-piloso, foliis petio-
latis oblongis subpinnatisectis pinnatifidisve rugosis villosis, lobis eroso-
dentatis obtusissimis, floralibus bractæformibus latissimis acuminatis
concavis persistentibus calyce brevioribus, racemis paniculatis, verticil-
lastris distantibus subsexfloris, calycibus tubulosis striatis, labio supe-
riore breviter tridentato, dentibus omnibus erectis subspinosus, corollis
calyce subduplo longioribus.

S. sinaica. Delile MSS.

Hab. in Palæstinæ arvis *N. Bové!* (*h. s. sp. a cl. Bové lectam, et
h. s. c. comm. a cl. Delile.*)

Habitus inflorescentia et flores *S. spinosæ*, differt foliorum forma. Nomen
Delileanum mutavi ob errorem habitationis.

41. *S. TINGITANA.*

Hab. in Hispania australi prope Cadix *Picard!* (*v. s. sp.*)

p. 227. 46. *S. VERBASCIFOLIA.*

Hab. in Persiæ provincia Azarbaidjan *Bé-
langer!*

p. 229. 49*. *S. CANESCENS* (Meyer! Enum. Pl. Cauc.-Casp. 86), caule
herbaceo basi albo-lanato, foliis lanceolato-oblongis integris vel sinuato-
lobatis basi longe angustatis rugosis supra laxè subtus dense albo-lanatis,
floralibus latissimis acuminatis concavis persistentibus calyce subbre-
vioribus, racemis ramosis villosis-viscosis, verticillastris remotis, calyci-
bus tubuloso-campanulatis, labio superiore truncato breviter dentato
inferioribus dentibus lanceolatis acuminatis, corollis calyce subtriplo
longioribus, tubo breviter exserto, labio superiore subfalcato.

Hab. in promontorii Caucasici rupestribus versus fluvium Anticetam
et prope acidulam Nartzana *C. A. Meyer!* (*h. s. sp. comm. a cl.
Meyer.*)

Valde affinis *S. phlomoidi*, differt habitu elatiore, tenuiore, racemis ramosis et
floribus paucioribus minoribus (?). Exemplar vero mecum a cl. Meyero communi-
catum vix perfectum est.

51. *S. CERATOPHYLLA.*

Hab. in Persiæ provincia Azarbaidjan prope Erivan *Bé-
langer! C.
A. Meyer!* inter Armadan et Kermantcha *Olivier!*

p. 230. 54. *S. BICOLOR.*

p. 231. Hab. in Andalusia *Hænseler!*

p. 232. 58*. *S. LIMBATA* (Meyer! Enum. Pl. Cauc.-Casp. 86), caule
herbaceo erecto subnudo pubescente, foliis radicalibus petiolatis lato-
ovatis integris eroso-dentatis basi cordatis rugosissimis utrinque viridi-
bus subhirsutis, caulinis paucis sessilibus, floralibus ovatis acuminatis
calyce brevioribus, racemis ramosis, verticillastris 2-6-floris distantibus,
calycibus subsessilibus late campanulatis hispidulis, labio superiore
rotundato dentibus brevissimis conniventibus, inferioris dentibus acutis,
corollis calyce subtriplo longioribus, tubo subexserto, labio superiore

falcato compresso, inferioris lobis lateralibus oblongis erectis, genitalibus exsertis, connectivis postice deflexis dilatatis extremitate callosa connexis.

Hab. in Caucaso: in locis siccis lapidosis montium Talüsch prope pagum Swant *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

Ab affini *S. austriaca* differt foliis brevioribus rugosioribus, racemis paucifloris et calycibus latius campanulatis vix hirtis.

61. *S. DUMETORUM.*

p. 234.

Ex habitatione excl. plantam Cashmerianam ad *S. Sibthorpii* spectantem.

63. *S. VIRGATA.*

S. gigantea. *Desf. Cat. Hort. Par. ed. 2. 68.*

p. 235.

S. pyrenaica. *Linn.! Spec. 36. ex herb. Tourn. et supra 42.*

S. grandidentata. *Ten. Ind. Sem. Hort. Nap. 1829.?*

67. *S. SIBTHORPII.*

p. 236.

Hab. in valle Cashmeriana *Royle! Jacquemont!*

p. 237.

68. *S. SYLVESTRIS.*

Hab. in Persia ad Khor, Teheran, Salimania, etc. *Bélangier!*

71. Loco *S. BULLATA* (*Schousboe**) lege *S. SCLAREOIDES* (*Brot.!* p. 239. *Phyt. Lus. 3. t. 2.; Flor. Lus. 1. 17*), nomen antiquius, cum descriptione, etc. *S. bullatæ.*

S. bullata. *Schousboe! ex Vahl. Enum. 1. 265. Sit syn.*

74. *S. CLANDESTINA.*

p. 241.

S. collina. *Low. Prim. Fl. Mader. 19.*

Hab. in ins. Madera *Lowe!*

75. *S. CONTROVERSA.*

p. 241.

β *grandiflora*, corollis calyce plus duplo longioribus.

p. 242.

Hab. β in arenosis maritimis prope Jaffa *N. Bové!* et alibi cum var. α miscitur.

It appears, that in the ordinary *clandestine* state of this plant the corolla is abortive, as frequently occurs in the *S. verbenaca* and *clandestina*, especially in their more southern stations. In the large flowered state the *S. controversa* comes near, and has been mistaken for, the *S. ceratophylloides*; but besides the differences in habit, and the remarkably hairy calyxes, its leaves are rather (in smaller proportions) those of *S. ceratophyllum* than of *S. ceratophylloides*.

75*? *S. DESERTI* (*Decaisne!* in *Ann. Sc. Nat. Par. 1834. 2. 248*), suffruticosa incana, ramis divaricatis pubescentibus, foliis parvis paucis oblongis petiolatis crenatis bullato-rugosis margine reflexis cano-pubescentibus, floralibus parvis supremis minimis, verticillastris 2-6-floris distantibus, calycibus ovato-campanulatis pilis longissimis hirsutis, labio superiore tridentato inferiore bidentato, dentibus omnibus subæqualibus vel superiore minore.

Hab. in deserto Sinaico *N. Bové!* (*h. s. sp. a cl. Bové lectam.*)

Corollæ in exemplaribus suppetentibus desunt, et ideo sectio inserta. Quoad habitus inter *S. controversam* et *S. ægyptiacam*, fere media est, et forsan huic affinior. Calyces fere *S. controversæ* sed dentes labii superioris vix connivunt.

76. *S. NUBIA.*

Hab. in Abyssinia *Rüppell!* (*v. s. sp. in herb. Mus. Senkenb. Francof.*)

77. *S. SCLAREOIDES* deleatur, est enim *S. bullata*.
- p. 243. 79. *S. PYRENAICA* deleatur, est *S. virgata*.
81. *S. CANESCENS* removetur, et post n. 40. *S. spinosam* collocetur.
82. *S. LIMBATA* collocetur post n. 58. *S. austriacam*.
- p. 245. 84. *S. MISELLA*.
Fide exemplaris Humboldtiani in Herbario Musæi Parisiensis servati, hæc species vix differt a *S. occidentali*.
- 85*. *S. RIPARIA* (Humb. et Kunth. Nov. Gen. et Spec. Amer. 2. 300, et supra 247) huc collocetur. (*v. s. sp. in herb. Mus. Par.*)
- p. 247. 91. *S. RIPARIA* removetur, et collocetur post *S. obscuram* cui affinis est.
- p. 248. 91.* *S. PALÆFOLIA* (Humb. et Kunth. Nov. Gen. et Spec. Amer. 2. 303. t. 157. et supra 266) huc collocetur. (*v. s. sp. in herb. Mus. Par.*)
- p. 250. 98. *S. AZUREA*.
S. longifolia. Nutt. Trans. Amer. Phil. Soc. 5. 185.
Hab. in Arkansas Nuttall (fide exempl. ex seminibus Nuttallianis cultis).
- p. 252. 103. *S. STACHYOIDES*.
Vix a *S. elongata* differt. (*v. s. sp. in herb. Mus. Par.*)
- p. 253. 106. *S. COLLINA* removetur, et collocetur post *S. brevifloram*.
- p. 254. 107. *S. ASSURGENS*.
Affinis *S. prunelloidi*. Calyx molliter pilosissimus. (*v. s. sp. in herb. Mus. Par.*)
108. *S. SPICATA* removetur, et collocetur post *S. brevifloram*.
- p. 255. 112. *S. THYMOIDES*.
- p. 256. Hab. in Mexico ditone Oaxaca Andrieux! (*h. s. sp. comm. a cl. de Candolle.*)
113. *S. GLECHOMÆFOLIA*.
Folia basi truncato-subcordata. (*v. s. sp. in herb. Mus. Par.*)
114. *S. NANA*.
Folia rugosiora quam in *S. prunelloidi*. (*v. s. sp. in herb. Mus. Par.*)
- p. 258. 120. *S. GRACILIS*.
Affinis *S. carneæ*, sed certe diversa calyce glabro et foliis non cordatis.
- p. 259. 122. *S. MEMBRANACEA*.
γ villosula, foliis minoribus, calycibus junioribus villosis.
Hab. *γ* in Mexico circa Oaxaca Andrieux! an species nova?
- p. 260. 123*. *S. HERBACEA*, caule herbaceo erecto subramoso villosa, foliis longe petiolatis lato-ovatis rhombeisve basi subcordatis pubescentibus, floralibus ovatis deciduis, racemis simplicibus, verticillastris subsexfloris distinctis, calycibus ovato-tubulosis hirsutis herbaceis, labio superiore dentibusque labii inferioris ovato-dilatatis, corollis calyce dimidio longioribus, tubo incluso.

Hab. in Mexico ad Tehuantepec in ditioe Oaxaca *Andrieux* !
(v. s. sp. in herb. DC.)

S. rhombifoliae affinis, differt caule calycibusque hirsutioribus, et praesertim calycibus longioribus viridibus labiis herbaceo-dilatatis vix acuminatis.

127. *S. HIRTA* removetur, et collocetur inter *Longifloras coccineas* juxta *S. Hænkei*.

132. *S. HISPANICAM*, in America boreali circa New York legit cl. p. 262. *Mitchell* ! forsan ex Europa vel ex Jamaica allatam.

132*. *S. ANGULATA*, caule herbaceo erecto vix pubescente, foliis petiolatis lato-ovatis acuminatis serratis basi rotundato-cuneatis tenuiter pubescentibus subtus vix canescentibus, floralibus ovatis acuminatis deciduis, racemis multifloris elongatis ramosis, verticillastris laxis secundis, calycibus tubuloso-campanulatis vix pubescentibus, labio superiore integro dentibusque labii inferioris acutis, corollis calycem breviter superantibus, labio superiore recto pubescente, inferiore longiore, lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo barbato.

Hab. in Caracas *Vargas* ! (v. s. sp. in herb. DC.)

Habitus fere *S. polystachyæ*. Caulis anguli crassi, glabri, acuti, facies pubescentes. Folia fere *S. polystachyæ* sed glabriora, basi saepius cuneata. Racemi longiores, laxiores. Calyces fere glabri, saepius colorati, angulati. Corolla dimidio minor.

133*. *S. DENSIFLORA*, caule herbaceo erecto vix pubescente, foliis petiolatis ovatis obtusis crenatis basi rotundato-truncatis subcordatisve rugosissimis utrinque pubescentibus viridibus vel vix subtus canescentibus, floralibus deciduis, racemis subsimplicibus spicaeformibus, verticillastris multifloris approximatis, calycibus tubulosis subglabris, labio superiore integro dentibusque labii inferioris ovatis obtusis, corollis calyce dimidio longioribus, genitalibus exsertis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in ins. Dominica *Herb. Bosc* ! (h. s. sp. comm. a cl. *Moretti*.)

Species *S. polystachyæ* et *S. Keerlii* affinis, sed ab utraque distinctissima, a priori foliorum forma, a *S. Keerlii* pubescentia, ab utraque inflorescentia, calycis forma, corollis parvis et genitalibus longe exsertis.

135*. *S. FRUTICULOSA*, caule fruticoso humili ramosissimo, ramis albo-tomentosis, foliis petiolatis ovatis obtusis crenulatis basi rotundato-truncatis subcordatisve rugosissimis supra vix pubescentibus subtus albo-tomentosis, floralibus ovatis acuminatis deciduis, racemis simplicibus, verticillastris subsexfloris distantibus, calycibus subsessilibus tubuloso-campanulatis albo-tomentosis, labio superiore integro dentibusque labii inferioris obtusis truncatis, corollis calyce subtriplo longioribus, tubo breviter exserto, labio superiore recto inferiore duplo longiore lobis rotundatis, stylo breviter barbato.

Hab. in Mexico circa Oaxaca *Andrieux* ! (h. s. sp. comm. a cl. *de Candolle*.)

Affinis *S. scorodoniae* et *S. brevifloræ*, sed ab utraque habitu distinctissima. Fruticulus est vix 4-6-pollicaris. Folia semipollicaria.

138*. *S. CARDIOPHYLLA*, herbacea ? vel suffruticosa ? ramis pubescentibus, foliis petiolatis ovatis crenatis basi profunde cordatis

rugosis utrinque molliter villosis, floralibus deciduis racemis elongatis simplicibus, verticillastris subsexfloris distantibus, calycibus tubuloso-campanulatis tenuiter pubescentibus, labio superiore integro dentibusque labii inferioris ovatis acutiusculis, corollis calyce duplo longioribus, tubo subincluso ventricosus, labio superiore brevi recto, inferiore subtriplo longiore lobis rotundatis, connectivis postice deflexis linearibus longitudinaliter connatis, stylo glabro.

Hab. in Americæ meridionalis extratropicæ Banda oriental *Herb. Hooker!* (v. s. sp. in herb. *Hooker.*)

Habitus *S. cuspidatæ* a qua differt foliis molliter villosis et calycibus majoribus subcoloratis, dentibus muticis, labio superiore integro.

p. 266. 141. *S. CARNEA*.

Ab *S. gracili* certe distincta. (v. s. sp. in herb. *Mus. Par.*)

142. *S. PALÆFOLIA* removetur, et ad *Micranthas* ante *S. tiliæ-foliam* amandetur.

p. 272. 159. *S. CLINOPODIOIDES*.

A *S. Parquerensi* foliis et aliis notis diversa. (v. s. sp. in herb. *Mus. Par.*)

p. 273. 160*.? *S. MATHEWSI*, herbacea? ramis superne villosissimis, foliis amplis petiolatis ovatis basi profunde cordatis flaccidis utrinque viridibus glabris vel nervis vix hirsutis, floralibus bracteæformibus lato-ovatis membranaceis coloratis calyces æquantibus subpersistentibus, racemo elongato laxo, verticillastris 6-10-floris, calycibus pedicellatis magnis tubulosis, labio superiore integro dentibusque labii inferioris ovatis acutis, corollis calyce vix duplo longioribus, tubo calycem æquante, labio superiore brevi, genitalibus longe exsertis, connectivis postice linearibus deflexis longitudinaliter connatis.

Hab in Peruvia ad Purrochuca et Obrajillo *Mathews!* (h. s. sp. comm. a cl. *Lindley.*)

Flores *S. speciosæ*. Folia fere *S. macrophyllæ* et forsitan melius inter *Longifloras cæruleas* enumeranda. Caulis (vel rami?) basi subglabri. Folia inferiora 6-8-pollicaria; floralia obtusiuscula. Racemus elongatus ultrapedalis. Verticillastri distincti. Pedicelli calycem æquantes hirsuti. Calyces 7-8 lin. longi, basi hispidi, apice glabri, colorati. Corollæ tubus amplus, labium inferius superiore plus duplo longius.

The flowers of this are so exactly those of *S. speciosa* (of which I have only seen young specimens), that I should have thought it to be the same species were not the leaves so different. In Matthews's specimens these are, however, loose, and possibly they may not really belong to the same plant, although there is no appearance of any error.

p. 273. 163. *S. LEUCOCEPHALA*.

Species pulcherrima huc rite collocata. (v. s. sp. in herb. *Mus. Par.*)

p. 274. 164*. *S. COLLINA* (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 288. et supra 253).

Affinis *S. brevifloræ*, differt foliis supra viridibus et eorum forma. (v. s. sp. in herb. *Mus. Par.*)

164**. *S. SPICATA* (Rœm. et Schult. Syst. Mant. 1. 202. et supra 294).

Hæc etiam species affinis est *S. brevifloræ*, sed characteribus datis abunde distinguitur. Calyces villosiores subrubescens. (v. s. sp. in herb. *Mus. Par.*)

173. S. LUTEA.

p. 277.

Species distinctissima huc rite collocata. (v. s. sp. in herb. Mus. Par.)

178. S. GLUMACEA removetur, et inter *Coccineas* ante S. subrotundam collocetur. p. 278.

190*. S. HIRTA (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. p. 283. 296. et supra 260).

Affinis S. Hænkei. (v. s. sp. in herb. Mus. Par.)

190**. S. RUBESCENS (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 301. t. 154. et supra 292).

Affinis S. Hænkei. (v. s. sp. in herb. Mus. Par.)

190***. S. SQUALENS (Humb. et Kunth. Nov. Gen. et Sp. Amer. 2. 297. et supra 292).

Affinis binis præcedentibus. Corollæ breves videntur sed vix in exemplare perfecta. (v. s. sp. in herb. Mus. Par.)

191. S. TORTUOSA.

Præter characteres datos differt a S. curviflora calycibus ut in S. Mariana lanatis. (v. s. sp. in herb. Mus. Par.)

196. S. MOSCHATA.

p. 285.

Affinis S. Neovidensi et S. altissimæ, et huc rite collocata. (v. s. sp. in herb. Mus. Par.)

198. S. SECUNDA.

β foliis subtus cano-tomentosis.

p. 286.

Hab. β in provinciæ Minas Geraes Serro Frio Vauthier!

204. S. SESSEI.

p. 288.

Hab. in declivitate occidentali Cordillera de Guchillaqua Berlandier!

204*. S. PUBESCENS, caule fruticoso, ramis tomentoso-pubescentibus, foliis petiolatis ovatis obtusiusculis basi rotundatis rugosis supra pubescentibus subtus molliter cano-villosis, floralibus minoribus supremis minutis deciduis, verticillastris paucifloris subpaniculatis, calycibus subsessilibus inflato-tubulosis subincurvis apice coloratis, labio superiore integro inferiorisque dentibus lato-ovatis obtusis, corolla calyce duplo longiore extus pubescente, tubo longe exserto subæquali, labiis subæqualibus, inferioris lobis lateralibus oblongis reflexis medio rotundato, connectivis postice linearibus deflexis longitudinaliter connatis, stylo breviter barbato.

Hab. in Mexico ad San Dionicio in ditione Oaxaca Andrieux! (v. s. sp. in herb. DC.)

Affinis S. Sessei et S. Reglæ. Habitus prioris, a qua differt foliorum forma et pubescentia molli totius plantæ. Calyces minus inflati et basi pubescentes, vix membranacei.

208*. S. GLUMACEA (Humb. et Kunth. Nov. Gen. et Sp. Amer. p. 290. 2. 298. et supra 278).

Affinis S. subrotundæ. (v. s. sp. in herb. Mus. Par.)

210. *S. COCCINEA*.

Hab. in ins. Cuba *De la Ossa* ! in Mexico circa urbem Matamoras *Berlandier* ! in Brasilia tropica prope urbem Bahia *Blanchet* !

211*. *S. LINEATA*, ramis bifariam pubescentibus, foliis petiolatis ovatis obtusis crenatis basi truncatis utrinque viridibus tenuiter pubescentibus, floralibus lato-ovatis deciduis, racemis simplicibus, verticillastris 4-6-floris, calycibus tubuloso-campanulatis viridibus pubescentibus, labio superiore integro dentibusque labii inferioris ovatis vix acuminatis, corollis calyce duplo longioribus, tubo exserto ventricoso, fauce contracta, labio superiore extus villosa erecto, inferioris lobis lateralibus oblongis reflexis, medio rotundato deflexo, staminibus inclusis, connectivis postice deflexis oblongo-linearibus longitudinaliter connatis, stylo plumoso.

Hab. in Mexico *Karwinski* ! (v. s. sp. in herb. *Endlicher*.)

Folia fere *S. Grahmi*. Corolla forma *S. fulgentis*, at minor. Folia floralia ante anthesin imbricata, pubescentia, brevissime ciliata, latiora quam in *S. glumacea*, a qua hæc species differt etiam pubescentia, foliis crenatis non coriaceis et verticillastris sæpius sexfloris.

p. 291. 212. *S. PHÆNICEA*.

Folia glaberrima. Affinis *S. glumaceæ*, sed floribus distinctissima. (v. s. sp. in herb. *Mus. Par.*)

213. *S. PULCHELLA*.

S. doliostachys. *Lag.* !

p. 292. 215. *S. RUBESCENS* et

216. *S. SQUALENS* removentur, et juxta *S. Hænkei* collocentur.

217. *S. AYAVACENSIS*.

Affinis *S. rubescenti* et *S. squalenti*, sed corolla cœrulea videtur. (v. s. sp. in herb. *Mus. Par.*)

p. 293. 220. *S. RUMICIFOLIA*.

Species pulcherrima inter *Brachyanthas* et *Longifloras* media. (v. s. sp. in herb. *Mus. Par.*)

p. 294. 221. *S. PETIOLARIS*.

Species distincta etsi *S. sagittatæ* et *S. macrophyllæ* affinis. (v. s. sp. in herb. *Mus. Par.*)

220*. *S. VITIFOLIA*, caule herbaceo erecto villosa, foliis petiolatis late deltoideis angulato-lobatis basi truncatis vel late sagittato-cordatis crassis utrinque villosa-hirsutis viridibus vel subtus rufescentibus, floralibus ovato-lanceolatis acuminatis deciduis, racemis elongatis ramosis, verticillastris remotis 2-6-floris, calycibus pedicellatis ovato-campanulatis villosis, labio superiore subtridentato dentibusque labii inferioris acuminatis, corollis calyce 3-4-plo-longioribus, tubo breviter exserto ventricoso, limbo hiante, labio superiore falcato, inferiore longiore lobis rotundatis, stylo glabro.

Hab. in Mexico ad montem San Felipe prope Oaxaca *Andrieux* ! (v. s. sp. in herb. *DC.*)

Habitus *S. petiolaris*, *sagittatæ*, et *macrophyllæ*, sed foliorum præcipue forma

distinctissima. Flores fere *S. petiolaris*. Corollæ cœruleæ; tubus supra ovarium contractus dein prope faucem valde ventricosus. Connectiva postice oblongo-dilatata, longitudinaliter connata, extremitate libera.

222*. *S. MACROPHYLLA*, caule herbaceo erecto piloso-hispido, foliis longe petiolatis amplis ovatis cordatis superioribus hastatis subrugosis utrinque viridibus hispidis, floralibus ovatis deciduis, racemis elongatis ramosis viscosis, verticillastris remotis 2-4-floris, calycibus pedicellatis campanulatis demum elongatis villosis, labio superiore brevissime tridentato, inferiore bifido, dentibus omnibus ovatis acutis, corollis calyce subquadruplo longioribus, tubo exserto ampliato, labio superiore erecto, inferiore vix longiore lobis rotundatis, connectivis postice linearibus deflexis longitudinaliter connatis, stylo glabro.

Hab. in Peruviae valle Huanuco ad ripas fluminis *Mathews!* (*h. s. sp. comm. a cl. Lindley, et v. s. sp. in herb. Hooker.*)

Affinis *S. sagittatæ* differt, statura elatiore, foliis multo majoribus latioribus, basi auriculis rotundatis cordatis nec divaricato-hastatis lobatisve, multo minus rugosis et magis hispidis. Verticillastri sæpissime biflori, secundi. Corolla cœrulea. Genitalia exserta.

226*. *S. KARWINSKII*, caule fruticoso? ramis rufo-lanatis, foliis petiolatis ovatis acuminatis crenatis basi rotundatis supra subrugosis asperulis subtus rufo-lanatis, floralibus deciduis, verticillastris multifloris, calycibus amplis tubulosis glanduloso-villosis, labio superiore integro dentibusque brevissimis, labii inferioris longe acuminatis, corollis calyce duplo longioribus, tubo amplo exserto, labio superiore erecto, inferiore vix longiore, lobis ovatis, genitalibus corollam æquantibus, connectivis postice deflexis longitudinaliter connatis, stylo glabro.

Hab. in regno Mexicano *Karwinski!* (*v. s. sp. in herb. Endlicher.*)

Affinis quodammodo *S. longistylæ* et *S. amethystinæ*, sed characteribus datis distincta. Habitu *S. Hænkei* similior, sed corolla cœrulea videtur et aliis notis diversa.

230. *S. CONCOLOR.*

Folia juniora interdum tenuiter pubescentia.

p. 297.

237. *S. CUPHEÆFOLIA.*

Folia *S. punctatæ*, calyces multo longiores. Corollæ in exemplare desunt, sed verosimiliter hæc species inter *Longifloras aurantiacas* enumeranda est. (*v. s. sp. in herb. Mus. Par.*)

p. 300.

240. *S. DISCOLOR.*

Species hæc distinctissima verosimiliter inter *Longifloras cœruleas* collocanda est. (*v. s. sp. in herb. Mus. Par.*)

p. 301.

257*.? *S. CHINENSIS*, caule herbaceo erecto pubescente, foliis petiolatis integris vel infimis trisectis lato-ovatis obtusis crenatis basi truncatis cordatisve supra pilosis subtus glabris, floralibus parvis bractæformibus, racemis subsimplicibus, calycibus tubuloso-campanulatis striatis glabris hispidulisve, corollis calyce subduplo longioribus, tubo vix exserto, labio superiori incurvo, inferiore patente.

Hab. in China prope Kia-nang *Sir G. Staunton!* (*v. s. sp. in herb. Banks.*)

Herba subfasciculatim ramosa. Folia subpollicaria; pili paginae superioris longi sparsi; inferiorum segmenta lateralia intermedio parum minora, sessilia vel

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petiolulata. Racemi semipedales. Verticillastri distantes subsexflori. Flores fere *S. japonicæ*. Calyx coloratus, labium superius integrum rotundatum. Corolla extus pubescens.

Not having had an opportunity of dissecting the flowers of this plant, I am not certain whether it belongs to *Heterosphace*, where I have placed it on account of its affinity to *S. japonica*, or whether it be a *Gymnosphace*, of which it has the calyx.

p. 309. 261. *S. PLEBEIA*.

S. minutiflora. Bunge! *Enum. Pl. Chin. Bor.* 50.

Hab. in tota India septentrionali usque ad urbem Cashmere *Jacquemont*! ad vias et in collibus prope Pekinum *Bunge*!

261*. *S. PUMILA*, caule humili erecto cæspitoso pilis longis rigidis barbato, foliis ad basin caulis approximatis oblongis linearibusve basi angustatis rugosissimis utrinque viridibus, floralibus minutis, racemis subramosis, verticillastri remotis 2-6-floris supremis sterilibus, calycis ovati pilosi labio superiore brevissime tridentato dentibus conniventibus, inferiore bifido dentibus lato-lanceolatis acutissimis, corollis vix calycem excedentibus, connectivis postice adscendentibus liberis loculum cassum ferentibus.

Hab. in Cashmeria? *Jacquemont*! (n. 74) (*h. s. sp. e Mus. Par.*)

Valde affinis *S. ægyptiacæ*, differt caulibus erectis vix ramosis. Radix perennis. Caules vix 3-4-pollicares.

262. *S. ÆGYPTIACA*.

Thymus syrticus. *Spreng. Syst.* 2. 697.

Hab. in Persia *André*! Arabia *Desfontaines*.

MONARDA.

p. 315. Ante *M. DIDYMA* adde

SECTIO I. EUMONARDA.

Genitalia longe exserta.

1. *M. DIDYMA*.

p. 316. *M. Oswegoensis*. *Bart. Prod. Fl. Pens.* 1. 34.?

2. *M. FISTULOSA*.

M. varians. *Bart. Prod. Fl. Pens.* 1. 36.

p. 317. 3 *M. BRADBURIANA*.

M. fistulosa. *Hook. Bot. Mag.* 60. t. 3310. *excl. syn.*

p. 318. Ante *M. PUNCTATAM* adde

SECTIO II. CHEILYCTIS.

Cheilyctis. *Rafin.*

Coryanthus. *Nutt. Trans. Amer. Phil. Soc.* 5. 186.

Stamina labio superiore corollæ breviora vel æqualia.

ZIZIPHORA.

3. Z. CANESCENS.

p. 321.

Hab. in rupibus montis Libani *N. Bové!*

8. Z. TAURICA.

Hab. in Arabia *Delile*, Persia *Bélanger!*

Post ZIZIPHORAM adde

p. 323.

XXXIII*. HORMINUM.

Hormini sp. *Linn.*Melissæ sp. *Jacq.*

Calyx campanulatus bilabiatus, labio superiore tridentato, inferiore bifido. Corollæ tubus exsertus, intus piloso-annulatus, faux elongata ampliata, limbus subbilabiatus, labio superiore truncato emarginato, inferiore 3-lobo, laciniis brevibus latis rotundatis. Stamina fertilia 4, adscendentia, didynama, inferioribus longioribus. Antheræ per paria cohærentes, lineares, loculis divaricatis. Stylus apice breviter bifidus, lobis subulatis. Stigmata minuta. Achenia læviuscula.

A single European species with some affinity to the *Melissæ Meliphylla*, but much more to the *Salviæ Heterosphaces*, and especially to *Salvia lyrata*, with which Linnæus associated it, but from which it differs by the presence of the upper stamina, and by the structure of the anthers. Its connate anthers (which are exactly those of *Monarda*), and the annulus in the tube of the corolla remove it from *Melissineæ*, and indicate its place next to, if not amongst, the *Monardeæ*.

1. H. PYRENAICUM.

H. Pyrenaicum. *Linn. ! Spec. 831. Sw. Brit. Fl. Gard. 3. t. 252.*Melissa Pyrenaica. *Jacq. Hort. Vind. 2. t. 183.*

Hab. in Europæ temperatæ montibus: in Pyrenæis! Alpibus Vallesiae! et Salisburgensibus! (*v. v. et h. s. sp.*)

Radix perennis. Folia fere omnia radicalia, petiolata, ovata, obtusa, profunde crenata, basi truncata vel subcordata, venosa, utrinque viridia, glabra vel ad nervos hispidula. Caules floriferi erecti, semipedales, simplices, basi foliorum paribus 1-2 parvis sessilibus crenatis donati, infra medium floriferi. Verticillastri distantes, subsexflori, secundi. Folia floralia bracteæformia, calyce breviora. Calyces breviter pedicellati, nutantes, nervis sub-13 elevatis striati, apice sæpe colorati, glabri vel ad nervos hispiduli, labiis patentibus, dentibus acutissimis. Corolla purpureo-violacea, 9-10 lin. longa.

BYSTROPOGON.

Ante 1. B. PUNCTATUM adde

p. 325.

B. ERIANTHUS, foliis serratis supra viridibus glabris subtus vix tomentosis, cymis pedunculatis corymbosis, dentibus calycinis ovatis, corollis calyce plus duplo longioribus, extus villosis.

Hab. in ins. Juan Fernandez *Domina Graham. (v. s. sp. in herb. Hooker.)*

Frutex humilis, B. punctato habitu similis, sed foliis acutis serratis, et floribus distincta. Corollæ nempe 3 lin. longæ, tubo basi tenui extra calycem inflato; laciniae parvæ, latæ, superiores erectæ, inferiores patentes; faux et tubi pars superior intus

lineis pilorum verticalibus dense villosa. Stamina inclusa, subæqualia, omnino *Bystropogonis*. Species a *Bystropogone* non separanda, etsi characteribus corollæ quodammodo ad *Sphacelem* accedit.

PYCNANTHEMUM.

- p. 328. 2*. *P. LOOMISII* (Nutt. Journ. Acad. Nat. Sc. Philad. 7. 100).
Hab. in Georgia *Nuttall*.

"*P. floribus cymosis multibracteatis, bracteis lanceolatis acuminatis incanis, foliis petiolatis ovatis subserratis acutis brevibus superne glabris, dentibus calycinis abbreviatis acuminatis apice pilosis, floribus maculatis.*

"Affine *P. incano*, at facile distinguendum foliis brevioribus glabrioribus, statura humiliore, floribus conspicuis maculatis. Cymæ plerumque terminales magnæ. Bracteæ canescentes, exteriores uti folia petiolatæ, cæteræ densæ, anguste lanceolatæ. Calyx tubulosus, dentibus brevibus sed acutis fasciculo pilorum brevi terminatis. Corolla alba vel pallide rosea, maculis rubris; laciniae oblongæ. Species pulcherrima odore *Pulegii*."—*Nutt. l. c.*

2. *P. TULLIA*.

β *imberbe*.

Hab. β in Carolina australi *Mitchell*!

- p. 329. 4. *P. TORREI*.
Hab. in Carolina australi *Mitchell*!

5. *P. HYSSOPIFOLIUM*.

P. setosum. *Nutt. Journ. Acad. Nat. Sc. Philad. 7. 100. ?*

Synonymon *Purshianum* a *Nuttallio* citatum, certe ad *P. hyssopifolium* spectat, sed descriptio ejusdem auctoris melius cum *P. aristato* vero (*Michauxii*) quadrat.

6. *P. MUTICUM*.

P. pilosum. *Nutt. ! Gen. Pl. N. Amer. 2. 33.*

- p. 330. 7. *P. PILOSUM* deleatur.

ORIGANUM.

- p. 335. 3. *O. VULGARE*.

O. decipiens. *Wallr. !*

Hab. α et δ in Cashmeria *Jacquemont*! γ in siccis calidis Alpium maritimorum mense Octobri legi, videtur varietas autumnalis.

4. *O. NORMALE*.

- p. 336. Hab. in Cashmeria *Jacquemont*! in graminosis ad lacum Baical *Turczaninow*!

MAJORANA.

- p. 339. Varietas sub *M. HORTENSI* commemorata est *Origanum acinifolium* *Wallr. !*

THYMUS.

- p. 342. 3*. *T. TENUIFOLIUS* (Mill. Dict. n. 2), erectus vel basi procumbens, ramis pubescentibus, foliis sessilibus lineari-subulatis acutis

margine revolutis ad axillas fasciculatis viridibus subglabris, floralibus lanceolatis obtusis, verticillastris distantibus, calycis labii superioris dentibus ovatis, inferioris laciniis subulatis.

Hab. in Hispania australi *Pavon!* prope Cadix *Picard!* (*h. s. sp. comm. a cl. Lambert.*)

A *T. vulgari* differt præcipue foliis tenuioribus viridibus, glabris, vel vix subtus tenuiter cano-pubescentibus.

6. *T. BOVEI.*

p. 343.

Hab. inter Halepum et Bagdad *Olivier!*

8. *T. HERBABARONA.*

T. lucidus. *Guss. Prod. Fl. Sic. Suppl. 198.?*

10. *T. ANGUSTIFOLIUS.*

p. 344.

T. micans. *Lowe! Prim. Fl. Mader. 19.*

13. *T. LANCEOLATUS.*

p. 345.

In exemplaribus nonnullis spicæ vix secundæ.

16. *T. STRIATUS.*

p. 346.

T. acicularis *Guss. Prod. Fl. Sic. 2. 127.* mihi videtur hujus speciei varietas esse. A cl. autore (*Suppl. 197*) ad *T. sygis* *Linn.* refertur, "fide ipsius herb. nec non illius *Sibthorpii*," at meo sensu planta *Linneana* (cum *T. aciculari* *Waldst. et Kit.*) diversa est a *Sibthorpiana*, illa enim ad *T. angustifolium*, hæc cum *T. aciculari* *Guss.*, ad *T. striatum* referenda.

Hab. etiam ad ripas *Bosphori Olivier!*

T. MOSCHATELLUS deleatur, est *Melissa Calamintha.*

p. 350.

Speciebus dubiis addetur

T. SERPYLLOIDES (*Bory. Ann. Gen. 3. 18.*)

Hab. in Hispaniæ Sierra Nevada rupibus *Bory.*

"*T. caulibus fruticosis procumbentibus, foliis linearibus lanceolatisve obtusis basi subciliatis, floribus capitatis. Affinis T. angustifolio. Variat floribus albis et purpureis.*"—*Bory. l. c.*

SATUREIA.

3. *S. MONTANA.*

p. 353.

S. cuneifolia *Ten.* fide speciminibus nonnullis a cl. autore missis, et *S. obovata* *Lag.!* forsitan melius ad *S. virgatam* amandandæ sunt. Cæterum hæc species *S. montanæ* valde similis est.

Post 8. *S. RIGIDAM* adde

Species non satis notæ.

p. 355.

9. *S. CAMPANELLA* (*Ehrenb. Naturg. Reise, 13.*)

Hab. in Africa boreali prope Castelnova *Ehrenberg.*

"*S. suffruticosa, ramis pubescentibus, foliis ovato-lanceolatis acutis integerrimis hispidulis subsessilibus, florum cymis folio parum longioribus bracteatis, calycibus brevius campanulatis profunde quinquefidis. Habitu proxime accedit ad S. rupestrem Wulf.*"—*Ehrenb. l. c.*

10. *S. OLLA* (*Ehrenb. l. c.*)

Hab. in Africa boreali prope Castelnova *Ehrenberg.*

"*S. suffruticosa*, ramis seticulosis, foliis anguste linearibus et lanceolato-linearibus acutis setoso-hispidis, florum cymis folio vix longioribus bracteatis, calycibus brevius campanulatis profunde quinquefidis. Habitu propius accedit ad *S. Thymbra* cujus flores et folia majora sunt."—*Ehrenb. l. c.*

COLLINSONIA.

p. 358. 3. *C. SCABRIUSCULA*.

Caules interdum suberecti et racemi subramosi sunt.

HEDEOMA.

p. 367. 2*. *H. PIPERITA*, caule herbaceo pubescente, foliis subsessilibus ovatis obtusis subcrenatis basi rotundatis glabriusculis, floralibus subconformibus, verticillastris axillaribus subsexfloris, corollis calycem subsuperantibus.

Cunila piperita. Moç. et Sess. MSS.

Hab. in Nova Hispania *Moçino et Sessé!* (v. s. sp. in herb. Ph. Dunant ex herb. Pavon.)

Caulis basi perennis, ramosus; rami erecti, breves, subsimplices. Folia vix semipollicaria, utrinque viridia; floralia minora angustiora, suprema calyces vix æquantia. Bracteæ oblongæ, foliaceæ, in verticillastris supremis subnullæ. Calyces pubescentes fere *Melissæ graveolentis* duplo majores quam in *H. pulegioide*. Pedicelli fere lineam longi, subcomplanati. Corollæ purpurascentes? Stamina labium superius æquantia. Styli lobus supremus brevissimus. Habitus *Melissarum* sectionis *Acyni*.

MICROMERIA.

p. 371. 1. *M. GLABELLA*.

Dr. Torrey writes to me that this is not Michaux' *Cunila glabella*, a plant with which I am in that case unacquainted.

1*. *M. ARKANSANA*.

Hedeoma Arkansana. Nutt. in Trans. Amer. Phil. Soc. 5. 186.

Hab. in Americæ septentrionalis terræ Arkansas: in pascuis humidis petrosis ad ortum fluminis Kiamesha *Nuttall*.

"*H. caule ramoso, foliis lineari-lanceolatis antice serratis, superioribus integerrimis, verticillis subquadrifloris, pedicellis ad basin bibracteolatis, floribus tetrandris. Affinis H. glabræ, odore Pulegii. Tota planta glabra, glandulosa, 4-6 pollices alta. Pedicelli calycem cylindraceum æquantes. Dentes calycini setacei. Corolla subcampanulata, cærulea, palato albo.*"—*Nutt. l. c.*

p. 372. 5*. *M. CUNNINGHAMII*, caule herbaceo prostrato tenuiter pubescente, foliis petiolatis rotundatis subintegerrimis, pedicellis elongatis nudis, calycibus hirsutis, dentibus ovato-lanceolatis, fauce intus nuda.

Hab. in Novæ Zelandiæ insula septentrionali ad oram occidentalem prope flumen Mangamaka Hokianga *F. Cunningham!* (v. s. sp. in herb. A. Cunningham.)

Habitus omnino *M. Brownei!* Rami subfirmiores. Folia ejusdem magnitudine, vix unquam obscure crenata. Calyx magnitudine *M. Douglasii* et pari modo post anthesin ovato-globosus. Dentes intus villosi, sed faux nuda. Corolla tubo incluso, magnitudine et forma *M. satureioides et australis*.

8*. *M. PARVIFLORA* (Reichb. Fl. Germ. Exc. 859), fere glabra, p. 374. ramis suberectis, foliis sessilibus omnibus linearibus integerrimis margine revolutis, pedunculis folia æquantibus laxè subtrifloris, bracteis minutis, dentibus calycinis subulatis superioribus latioribus, fauce intus villosa.

Satureia parviflora. Vis.! *Pl. Rar. Dalm. in Bot. Zeit.* 1829. 1. *Erganzbl.* 13.

Satureia inodora. Host. *Fl. Austr.* 2. 135. non Salzm.

Hab. in Dalmatiæ extremo confinio prope Albaniam in montibus Pastrovitch *Visiani!* (*h. s. sp. comm. a cl. De Candolle.*)

A *M. græca* certe distincta (ut *Visiani* in l. c.), foliis multo angustioribus glabris, floribus longè pedicellatis paucioribus, calycis dentibus forma et longitudine inæqualibus.

Some specimens gathered by Olivier near Constantinople appear to be intermediate between this and the *M. græca*; but those which I have seen are scarcely sufficient to determine whether they are in fact a variety of the one or the other, or a distinct species.

9. Loco *M. LANATA* lege *M. TENUIS*, et in caractere, lin. 2, post verbum *linearibus* adde *acutis*.

In synonymo, loco Satureia lanata lege Satureia tenuis. Link.!

10. *M. TENUIS* deleatur, et substituetur

10. *M. LANATA*, suffruticosa, procumbens, ramis adscendentibus floccoso-lanatis, foliis sessilibus linearibus obtusis integerrimis margine revolutis lanatis, verticillastris 6-10-floris, cymis pedunculatis, calycibus sessilibus, dentibus brevissimis mollibus tomentosis.

Satureia lanata. Link.! in *L. de Buch. Besch. Canar. ins.* 143.

Hab. in montibus ins. Canariensium *Chr. Smith!* (*v. s. sp. in herb. DC.*)

Affinis *M. tenui*, et inter hanc et *M. variam* fere media. Folia breviora obtusiora quam in *M. tenui*. Inflorescentia *M. variæ*, a qua differt superficie tota tomento vel lana brevi candida, foliis crassioribus.

11. *M. VARIA.*

Satureia thymoides. Lowe! *Prim. Fl. Mader.* 19.

p. 375.

13. *M. INODORA.*

From the fine specimens from the Balearic islands, which I have seen in De Candolle's herbarium, it appears that the *M. inodora* and *M. approximata* are probably but one species.

28. *M. SATUREIODES.*

p. 380.

I fear that I am not quite correct in the characters and synonymes of this and the two following species (which are evidently very near to one another), but I have not at present a sufficient number of specimens within reach to clear up the confusion.

31*. *M. BOLIVIANA*, glabra vel tenuissime pubescens, foliis sub- sessilibus oblongis obtusis obovatisve integerrimis planis, verticillastris paucifloris, calycibus subsessilibus, dentibus brevibus obtusis erectis, fauce intus nuda. p. 381.

Hab. in civitate Boliviana *Pentland* ! (v. s. sp. in herb. DC.)

M. obovata affinis, sed foliis multo minoribus numerosis planis, et calycibus brevioribus, distincta. Folia utrinque subviridia. Corolla minor quam in *M. obovata*, vix calyce dimidio longior.

p. 383. 36. *M. PARVIFLORA* removetur, et post *M. græcam* collocetur.

MELISSA.

p. 386. 3. *M. THYMIFOLIA*.

Thymus organifolius. *Vis ! in Bot. Zeit.* 1830. 1. 51.

A specimen gathered by M. Visiani in Dalmatia, and communicated to me by him under the above name, appears to belong to this species ; but it is yet too young to determine it with certainty.

p. 387. 4. *M. GLANDULOSA*.

Hab. in Sardinia *Moris* !

5. *M. NEPETA*.

M. obtusifolia. *Pers. ! Syn.* 2. 132.

p. 388. 6. *M. CALAMINTHA*.

M. foliosa. *Opiz. ex Unio. Itin. Wurtemb.*

Thymus Moschatella. *Poll. Pl. Veron.* 15.

p. 390. 11. *M. ALPINA*.

Thymus nummulariæfolius. *Lois. ex herb. DC.*

12. *M. GRAVEOLENS*.

Hab. in agris Matritensibus frequens *Lagasca* ! in ins. Scio, et inter Bagdad et Kermancha *Olivier* !

p. 392. 16. *M. UMBROSA*.

Hab. in ins. Ceylon *Walker* ! in Cashmeria *Jacquemont* !

19. *M. CLINOPODIUM*.

p. 393. Hab. in Cashmeria *Jacquemont* !

20. *M. OFFICINALIS*.

M. occidentalis. *Rafin. !*

M. corsica. *Hortul.*

Hab. var. β in monte Libano *N. Bové* !

p. 396. *M. OBTUSIFOLIA* deleatur, est *M. Nepeta*.

KEITHIA.

p. 411. 3*. *K. CILIATA*, erecta, foliis margine calycibusque basi pilis longis rigidis ciliatis, verticillastris subracemosis, floribus sessilibus, corollis calyce dimidio longioribus.

Hab. in provincia Mexicana Texas *Herb. Hooker* ! (h. s. sp. comm. a cl. *Hooker*.)

Herba semipedalis, parum ramosa, ramis tenuiter tomentoso-pubescentibus.

Folia sessilia, $\frac{1}{2}$ -1-pollicaria, lanceolata, obtusa, integerrima, basi rotundata, crassiuscula, glabra, basi margine pilis longis albis ciliata, superiora minora; floralia inferiora subconformia, suprema calyce breviora. Verticillastri sexflori distantes. Bracteae lineares vel subulatæ, calycem æquantes. Calyces 3-4 lin. longi, erecti, basi gibbi, dense hispido-ciliati, superne tenues, glabri, subpurpurascens, ore subæquali contracto 5-dentato, fauce intus villosa, dentibus anguste lanceolatis acutis. Corollae labium superius calycem breviter superans, inferius longius trifidum, lobis oblongo-rotundatis, medio majore retuso. Antherarum loculi divaricati.

SCUTELLARIA.

2*. *S. PROSTRATA* (Jacquem. MSS.), caule prostrato, foliis petiolatis lato-ovatis subinciso-crenatis utrinque viridibus molliter pubescentibus, floralibus integerrimis submembranaceis imbricatis, spicis tetragonis oblongis. p. 424.

Hab. in montibus Indiæ orientalis septentrionalis circa Pangui, Rarang, et Choupienna *Jacquemont!* (*h. s. sp. e Mus. Par.*)

Habitus et foliorum forma *S. grandifloræ*, flores *S. orientalis*, ab utraque differt foliis utrinque viridibus. Corollae lutescentes, labio superiore supra violaceo, magnitudine *S. orientalis*.

5. *S. ALPINA*.

p. 425.

In char. spec. lin. 3. loco *spicatis*, lege *oblongis*.

S. compressa. *Arth. Hamilt. ! Monogr. 29.*

p. 429.

17*. *S. JAPONICA* (Morren et Decaisne in Ann. Sc. Nat. Par. 1834. 2. 315).

Hab. in Japonia *Siebold. (Morren et Decaisne.)*

"*S. caule basi prostrato, ramis adscendentibus quadrifariam puberulis, foliis ovatis obtusis grosse crenatis basi rotundatis glabris petiolatis, floralibus gradatim minoribus, floribus oppositis laxis, calycibus pilosiusculis, corollis pubescentibus cœruleis.*"—*Morr. et Decaisne l. c. ubi vide descr.*

39. *S. ANGUSTIFOLIA*.

p. 436.

Excl. Syn. *S. epilobiifolia*, *A. Hamilt. ad S. galericulatam spectans.*

41. *S. GALERICULATA*.

p. 437.

S. epilobiifolia. Arth. Hamilt. ! Monogr. 32.

Hab. in Cashmeria *Jacquemont!*

44. *S. RUMICIFOLIA*.

p. 438.

Hab. in Chili provincia Valdivia *Bridges!* ad Buenos Ayres *Tweedie!*

S. COMPRESSA deleatur, est *S. alpina* deflorata.

p. 444.

LOPHANTHUS.

Vleckia. Rafin.

p. 462.

1*. *L. RUGOSUS* (Fisch. et Meyer. Ind. Sem. Hort. Petrop. 1835. 30).

Hab. in China colitur *Fischer et Meyer.*

"*L. subglaber, foliis rugosis cordato-ovatis caudato-acuminatis serrato-dentatis utrinque concoloribus, spicis densis oblongis, lobis calycinis lanceolatis acutiusculis, staminibus corolla styloque multo longioribus.*

"*Statura L. urticifolii, sed foliis caudato-acuminatis et lobis calycinis brevibus*

April 1835.

acutiusculis (nec longissime acuminatis) ab illo optime distinctus; a *L. scrofularia-folio* foliorum forma, floribus majoribus et stylo corolla vix longiore staminibus ferme brevior abunde differt. Caulis 2-4-pedalis, strictus. Folia *Urticæ dioicæ*. Flores cœrulei. Herba odore et grato sapore *Menthæ piperitæ*.

NEPETA.

p. 469. 6*. *N. ERIOSTACHYS*, caule erecto subsimplici pubescente, foliis subsessilibus ovatis obtusis crenatis basi rotundato-subcordatis supra viridibus glabris subtus incanis, spica oblonga densa, bracteis oblongo-linearibus subulatisque calyces æquantibus, dentibus calycinis subulatis tubo sublongioribus bracteisque villosissimis.

Hab. in Cashmeriæ vallibus Baspâ et Paber, in herbosis editioribus, ad margines sylvarum, &c. *Jacquemont!* (v. s. sp. in herb Mus. Par.)

Spica fere *N. connatæ* et *N. nervosæ*, at foliis distinctissima. Herba 1-1½-pedalis. Folia 1-1½-pollicaria; floralia lato-ovata, infima crenata, superiora bractæformia, integerrima, acuta.

6**. *N. CAMPESTRIS*, pubescens vel glabriuscula, caulibus adscendentibus subsimplicibus, foliis subsessilibus lanceolatis acutis serratis basi rotundatis utrinque viridibus, spica elongata basi subinterrupta, bracteis exterioribus lanceolatis acutissimis ciliatis calyces subæquantibus, dentibus calycinis subulatis tubo subæqualibus.

Hab. in Cashmeriæ campestribus frequens *Jacquemont!* (h. s. sp. e Mus. Par.)

Affinis foliorum forma *N. nervosæ*, floribus *N. spicatæ*. Rami e basi perenni plures 1-1½-pedales, uti folia nunc pubescentia brevi omnino obtecti, nunc fere glabri. Spicæ et bractæe omnino *N. spicatæ*.

p. 470. 8. *N. SPICATA*.

In exemplaribus Cashmerianis a Jacquemontio lectis, caules et folia nonnunquam hispidula, et folia interdum vix cordata.

8*. *N. RAPHANORHIZA*, caule adscendente basi pubescente subviscoso, foliis petiolatis ovatis obtusiusculis serrato-crenatis basi truncatis hispidulis utrinque viridibus, spica brevi densa basi subinterrupta, bracteis exterioribus oblongis utrinque angustatis calyces subæquantibus, calycis dentibus subulatis hispidis inæqualibus tubo subglabro brevioribus.

Hab. in Cashmeriæ herbosis *Jacquemont!* (h. s. sp. e Mus. Par.)

Radix crassus *N. tuberosæ* (uti verosimiliter in speciebus plerisque *Pycnonepetarum*). Folia fere *N. spicatæ*, at minora. Rami superne elongati, subnudi. Spica brevior et crassior quam in *N. spicata*, verticillastro uno alterove sæpe longe distante.

9*. *N. MOLLIS*, caule adscendente villosa, foliis breviter petiolatis ovatis obtusis subcrenatis basi cordatis utrinque molliter villosis subtus subcanescentibus, superioribus parvis remotis, spica tenui subinterrupta, bracteis oblongo-linearibus acutissimis calyces æquantibus, calycis tenuiter pubescentis dentibus tubo multo brevioribus.

Hab. in valle Cashmeriano *Jacquemont!* (h. s. sp. e Mus. Par.)

Affinis *N. discolori*, sed characteribus datis distincta. Verticillastri vix sexflori, fere omnes distincti etsi approximati. Corolla pallide rosea, labio inferiore purpureo punctato, nec ut in *Pycnonepetis* plerisque cærulescens.

10*. N. GRATA, caule erecto ramoso tenuissime pubescente, foliis p. 471. subsessilibus ovatis obtusis crenatis basi rotundatis subcordatisve rugosis utrinque pubescentibus vel supra glabriusculis subtus subcanescentibus, spica ovato-oblonga crassa basi interrupta, calycis ore valde obliquo subbilabiato, corollis calyce vix duplo longioribus.

Hab. in Cashmeriæ lapidosis herbosis et humidis *Jacquemont!* (*h. s. sp. e Mus. Par.*)

N. *supinæ* simillima, et vix differt superficie potius tomentosa vel glabriuscula quam villosa, caule erecto elatiore (ultrapædali), et corollis parum minoribus. Calyx idem, villosus-hirsutus. Verticillastri pauci multiflori. Odor grata *Salviæ officinalis*.

11. Loco N. FISSÆ (Meyer), lege N. SUPINA (Stev. in Mem. Soc. Nat. Cur. Mosq. 3. 265).

Habitatio deleatur, et substituetur

Hab. in Caucaso orientali: in lapidosis ad torrentem Chodjal *Steven*, in alpihus Tufandagh inter fragmenta schisti *C. A. Meyer!* (*h. s. sp. comm. a cl. Meyer.*)

It appears from the synonyms in Messrs. Fischer and Meyer's catalogue of seeds from the Petersburg garden (January 1835), that the tickets of this plant and of the true *N. fissa Meyer* (*N. laxa* supra 483) had got transposed in the set of specimens sent to me by M. Meyer.

14. Loco N. ROSEA (Salzm.), lege N. APULEI (Ucria ex Guss. ! Prod. Fl. Sicul. 2. 80) cum descr. Syn. &c. *N. roseæ*, et adde

N. rosea. Salzm. ! Pl. Tang. Exs.

Hab. in Siciliæ apricis et collibus argilloso-calcareis *Gussone!*

15. N. TUBEROSA.

p. 472.

N. foliosa. Moris. Stirp. Elench. et supra, 488.?

Mr. Moris's specimens are very young. They appear to belong to this species; but if really distinct, it is impossible to characterise them until further advanced ones shall have been gathered.

16. N. APULEI hic deleatur, et pro *N. roseam* (n. 14.) substituetur.

17. N. SCORDOTIS.

p. 473.

N. Scordotis. Viv. Fl. Lib. Spec. t. 6. f. 2.

19. N. SUPINA hic deleatur, et pro *N. fissam* (n. 11.) substituetur

19*.? N. GLUTINOSA, caule erecto ramoso glutinoso-pubescente, foliis sessilibus ovatis lanceolatisve inciso-dentatis utrinque viridibus viscosis tenuissime pubescentibus, racemo simplici, verticillastris distantibus vel supremis subspicatis, bracteis linearibus acutissimis exterioribus calycibus parum brevioribus, calycibus elongatis striatis, dentibus brevibus acutis, corollæ tubo longe exserto.

Hab. in Indiæ Orientalis jugo Himalayano inter Poyé et Rici *Jacquemont!* (*h. s. sp. e Mus. Par.*)

Species *N. gratæ* et *N. Apulei* inter *Pycnonepetas*, *N. italicæ* inter *Stegionepetas*, *N. scordifoliæ* inter *Catarias*, et *N. septemcrenatæ*, *N. crispæ*, et *N. melissæfoliæ* inter *Macronepetas* affinis, et forsan ad hanc sectionem amandanda. Caulis 1-1½-pedalis, strictus. Folia supra subbullata, ½-¾-pollicaria, nervis subtus valde prominentibus. Inflorescentia fere *N. italicæ* vel *N. distantis*, sed cymæ etiam

infimæ plerumque sessiles. Calyces 4 lin. longi, striati, virides, viscoso-pubescentes. Corollæ violaceæ, tubo calyce subduplo longiore incurvo, fauce parum dilatata, labiis brevibus.

p. 474. 21. *N. ITALICA.*

N. macrostachya. Jan. ! Pl. Exs.

Hab. in agro Mogadoriensi? *Broussonet !*

p. 475. 23. *N. CILIARIS.*

Hab. inter Sangling et Pecca *Jacquemont !*

Jacquemont's specimens resemble the cultivated ones from Nipal seeds: it is, therefore, possible that the Cashmere plant may be distinct; but Mr. Royle's specimens alone are scarcely sufficient to shew that the differences are not owing merely to local circumstances.

24. *N. RUDERALIS.*

Hab. ad Saharumpur et in Deyra Dhoon *Jacquemont !*

Dr. Wallich's Hurdwar specimens should probably be referred to the *N. clinopodioides*; but they are not in a good state enough to determine.

p. 476. 26. *N. LEUCOPHYLLA.*

Hab. ad Simlah *Jacquemont !*

26*. *N. FLOCCOSA*, erecta, divaricato-ramosa, lana alba floccosa vestita, foliis petiolatis subrotundis basi cordatis, racemis laxissimis subramosis, cymis capitulæformibus paucis multifloris longe pedunculatis, bracteis lineari-subulatis calyces æquantibus.

Hab. in Indiæ septentrionalis lapidosis inter Nako et Chango *Jacquemont ! (h. s. sp. e Mus. Par.)*

Species lana, foliorum forma et inflorescentia distinctissima, etsi affinis *N. ruderali*. Radix crassus *Pycnonepetarum*. Foliorum petioli limbo longiores, limbus inferiorum fere 3 poll. longus et latus, margine sublobato-crenatus, crassus, subcarnosus, utrinque dense lanatus. Folia ramealia multo minora; floralia minima. Cymæ paucæ distantes; pedunculi inferiorum sæpe 2-3 poll. longi. Flores *N. ruderalis*. Corolla parva vix calycem excedens.

p. 477. 29. *N. CATARIA.*

Hab. in Cashmeria *Jacquemont !*

p. 479. 33. *N. CRISPA* removetur, et collocetur inter *Macronepetas* post *N. brevifoliam*.

34. *N. AGRESTIS.*

Hab. in Hispaniæ monte Urchillo prope Orceliam *Lagasca !*

Calyces in exemplare Lagascano vix pubescentes, sed ad eandem speciem spectare videtur.

p. 480. 38. *N. GRANDIFLORA.*

Hab. in ins. Melos dumetis rarius *Durville !*

p. 481. 40. *N. SALVIÆFOLIA.*

Hab. in montibus Pyr Pundjal et Hlamabad *Jacquemont !*

p. 482. 43. *N. GOVANIANA.*

Corollæ (fide Jacquemontii) lutescentes, in *N. macrantha* cæruleæ, in *N. erecta* violaceæ.

46. Loco N. LAXA, lege N. FISSA (Meyer Enum. Pl. Cauc. p. 483. Casp. 33).

Hab. in regione Caucasico-Caspico: in locis lapidosis aridis montium Talüschi prope Sivirs et Swant C. A. Meyer? prope Teheran Olivier!

48*. N. CRISPA (Willd. Sp. 3. 50. et supra 479). p. 484.

A N. brevifolia differt racemis densioribus et foliis crispis.

52*. N. NIVALIS, radice repente, caule humili, foliis sessilibus p. 485. rotundatis rugosis utrinque viridibus, floralibus conformibus, verticillastris axillaribus, bracteis pedicellum vix æquantibus, calycis elongati subincurvi pubescentis ore obliquo, dentibus lanceolatis, corollis tubo torto resupinatis, staminibus superioribus exsertis.

Glechoma nivalis. Jacquem.! MSS.

Hab. in Indiæ Orientalis septentrionalis montium glareosis altissimis circa Yurpo Jacquemont! (h. s. sp. e Mus. Par.)

Habitu odore et inflorescentia N. Glechomæ similis, sed characteribus datis distinctissima. Corolla resupinata more Lophanthi Chinensis. Caules basi ramosi, floriferi simplices, suberecti, 4-6-pollicares, tenuissime pubescentes. Folia infima parva, superiora et floralia approximata, $\frac{1}{2}$ -1-pollicem diametro, basi cordato-amplexicaulia, crenata, venoso-crispa, vix pubescentia. Calyx N. Glechomæ et pariter post anthesin reflexus. Corolla dilute cærulea, tubo tenui exserto, fauce vix dilatata. Stamina superiora (torsione corollæ inferiora) cum stylo exserta, inferiora (torsione superiora) brevissima. Antherarum loculi divergentes.

52**. N. THIBETICA, caule diffuso humili ramosissimo, foliis breviter petiolatis rotundatis basi truncato-cuneatis subcoriaceis pubescenti-sublanatis, floralibus conformibus, verticillastris axillaribus, bracteis pedicello longioribus, calycis elongati subincurvi dentibus lanceolatis subulatisve, corollis rectis fauce dilatata, genitalibus corolla brevioribus.

Glechoma thibetica. Jacquem.! MSS.

Hab. in montium Indiæ Orientalis septentrionalis schistosis aridis mobilibus juxta Koo-khio-ghang et Lari Jacquemont! (h. s. sp. e Mus. Par.)

A N. nivali præter characteres datos differt corollis majoribus et calycibus bracteisque molliter villosis.

52***. N. LONGIBRACTEATA, caule diffuso humili ramosissimo, foliis petiolatis ovato-rotundatis basi truncato-cuneatis molliter villosis, floralibus subconformibus, verticillastris densis ad apices ramorum congestis, bracteis linearibus corollas æquantibus, calycis tubulosi subæqualis dentibus tubo subæquilongis, corollis rectis, fauce parum dilatata, genitalibus corolla brevioribus.

Hab. in Indiæ Orientalis septentrionalis montibus: in lapidosis mobilibus prope Kang-rang-ghan-ti Jacquemont! (h. s. sp. e Mus. Par.)

Species inter Nepetas Glechomas et Marmoritidem fere media. Habitus laxior quam in N. nivali et thibetica. Rami subpurpurascens, tenuiter tomentosi. Folia inferiora parva, sæpe squamæformia, superiora semipollicaria, longiuscule petiolata, profunde crenata, basi integerrima, utrinque viridia vel villis mollibus subcanescentia; floralia angustiora, acutiora, suprema interdum bractæformia. Verticil-

lastri in capitulum oblongum glomerati. Bractee et calyces villosissima. Calyces corolla dimidio breviores. Corolla azurea, extus tenuissime pubescens, labiis brevibus, superiore erecto concavo, inferioris lacinia intermedia majore punctata.

53. *N. LATIFOLIA*.

Hab. in ins. Canariensibus *Webb et Berthelot*!

p. 488. *N. FOLIOSA* deleatur, est *N. tuberosa*.

DRACOCEPHALUM.

p. 496. 12*. *D. HETEROPHYLLUM*, caulibus adscendentibus, foliis petiolatis obtusis crenatis infimis rotundatis subreniformibus basi cordatis, superioribus oblongis, floralibus basi angustatis bracteisque oblongis aristato-dentatis, calyce bilabiato, labio superiore late semitrifido, inferiore bipartito, racemo subspicato.

Hab. in Indiæ Orientalis septentrionalis montibus: in schistosis mobilibus Koo-khio-ghang *Jacquemont*! (*h. s. sp. e Mus. Par.*)

A *D. Moldavica* differt statura humili, ramis subsimplicibus, spica densa, et foliorum forma. Folia etiam supra rugosa, subtus nervosa, superiora sæpe pubescentia, caulina nunquam aristata. Flores *D. Moldavicae* vel parum majores. Corollæ pubescentes.

p. 497. 14. *D. PELTATUM*.

Hab. inter Bagdad et Kermancha *Olivier*! (*v. s. sp. in herb. DC.*)

PHYSOSTEGIA.

p. 504. 1. *P. VIRGINIANA*.

Dracocephalum intermedium. *Nutt.*! in *Trans. Amer. Phil. Soc.* 5. 187.
Physostegia imbricata. *Hook.*! *Bot. Mag.* 62. t. 3386.

LAMIUM.

p. 508. 1. *L. ORVALA*.

Hab. in Foro Julii *Moretti*!

p. 509. 2. *L. MULTIFIDUM*.

Antheræ dorso villosæ, et idcirco ad *Lamiopsin* amandetur.

p. 510. 5*. *L. GLECHOMOIDES* (*Sm.*! in *Rees. Cycl.* v. 20), glabriusculum, foliis parvis longe petiolatis cordatis crenatis vel superioribus subincisis, verticillastris 6-10-floris, calycibus glabriusculis dentibus brevibus acutis, corollis calyce subquintuplo longioribus, tubo recto intus nudo, fauce amplissima, galea oblonga, lobis lateralibus angulatis dente brevi appendiculatis, antheris hirsutis.

Hab. in Oriente *Tournefort*! (*v. s. sp. in herb. Sm.*)

A *L. longifloro* differt foliis parvis et dentibus calycinis brevibus latis nec elongatis subulatis. A *L. veronicaefolio* foliorum forma, verticillastris multifloris, et calycibus proportionem corollæ brevioribus brevius dentatis.

p. 511. 9. *L. AMPLEXICAULE*.

L. palmatum. *Sm.*! in *Rees. Cycl.* v. 20.

11. L. PURPUREUM.

p. 512.

L. ocimifolium. *Sm.!* in *Rees. Cycl.* v. 20.

14*. L. PARIETARIÆFOLIUM, foliis inferioribus ovatis superioribus p. 514.
 ovato-lanceolatis acutis basi truncatis rarissime cordatis, dentibus calycinis longe subulatis, corollæ tubo amplo intus piloso-annulato subrecurvo-porrecto, fauce subdilatata, galea oblonga, lobis lateralibus dente subulato appendiculatis, antheris hirsutis.

L. parietariæ facie. *Moris. Blæs.* 278. ex *Auct.*L. molle. *Hortul. et Ait. Hort. Kew.* 2. 297. ex parte?Hab. (*h. s. c. ex hort. Par. comm. a cl. de Candolle.*)

Planta in hortis botanicis antiquioribus culta, a *L. vulgato* differt foliis etiam infimis rarissime cordatis, supremis multo angustioribus et sæpius integerrimis et corollis minoribus. An *L. vulgati* var. insignis in hortis orta?

I have not adopted the name of *L. molle*, as that appears to have been given by Aiton originally to the entire leaved variety of *L. purpureum*. Both are in the Banksian herbarium on the same sheet under the name of *L. molle*, as mentioned above, p. 512.

15. L. VULGATUM.

 β album.L. capitatum. *Sm.!* in *Rees. Cycl.* v. 20.

18. L. FLEXUOSUM.

p. 515.

Hab. in Barbaria *Desfontaines!*

LEONURUS.

3. L. CARDIACA.

Hab. α in jugo Himalayano ad vias circa Molhalah ad Nagkanda, p. 519.
 β ad vias in excelsis circa Hirpour *Jacquemont!*

5. L. TATARICUS.

L. multifidus. *Desf.!* *Hort. Par.* (*fide herb. DC.*)

7. L. SIBIRICUS.

L. occidentalis. *Colla in Mem. Acad. Taur.* 33. 154.

p. 521.

STACHYS.

3. S. BETONICA.

p. 532.

Betonica divulsa. *Ten. Syll. Fl. Nap. App.* 614? *

8. S. MOLLISSIMA.

p. 534.

Hab. in Hispania *Herb. Bosc!*

14*. S. FLOCCOSA, herbacea, caule elato lana densa floccosa vestito, foliis caulinis petiolatis ovato-lanceolatis obtusis crenatis basi cordatis supra molliter villosis subtus dense albo-lanatis floccosis, floralibus infimis crenulatis superioribus lanceolatis integerrimis pungentibus

* Hæc appendix tertia in exemplare meo libri citati deest.

calyce subbrevioribus, verticillastris multifloris distinctis racemosis supremis approximatis, bracteis lanceolatis calycem æquantibus, calycis subincurvi dentibus acutis pungentibus intus sublanatis, supremis majoribus, corollæ tubo incluso.

Hab. in Indiæ orientalis septentrionalis montibus: in pratis prope Hirpour *Jacquemont!* (*h. s. sp. e Mus. Par.*)

A *S. germanica* et *S. lanata* differt præcipue foliis basi profunde cordatis et lana caulis et foliorum paginæ inferioris densa floccosa nec longa sericea.

p. 539. 21. *S. COCCINEA*.

Hab. in declivitate occidentali montium Guchillapa et in valle Toluca *Berlandier!*

p. 544. 35. *S. ALBICAULIS*.

Hab. in Pampas circa Buenos Ayres *Gillies!*

p. 545. 37*. *S. SIDERITIDOIDES* (Gill. MSS.), herbacea, perennis, adscendens, sericeo-pilosa, foliis oblongo-lanceolatis serratis basi longe angustatis rugosis molliter sericeo-villosis, floralibus ovato-lanceolatis, supremis calyce brevioribus, verticillastris sexfloris remotis, calycibus campanulatis hispidis, dentibus lanceolatis acutis subspinosi, corollis pilosiusculis calyce vix duplo longioribus.

Hab. in America meridionali: in Andibus prope Mendoza *Gillies!* (*v. s. sp. in herb. Hooker.*)

Habitu *S. arenariæ* simillima, sed corollæ tubus intus exannulatus; forsan *S. grandidentatæ* var. sed villositate, calycibus longioribus et statura humili distinguitur. Specimen unicum vix completum vidi.

p. 546. 40*. *S. GILLIESII*, herbacea, adscendens, villosa, foliis petiolatis obtusis crenatis basi cordatis infimis rotundatis glabriusculis, superioribus ovatis pubescentibus, floralibus ovatis integerrimis calyce brevioribus villosis, racemo villosa-hispido, verticillastris sexfloris distantibus, calycibus ovato-campanulatis hispidis, dentibus ovato-lanceolatis acutis subspinosi, corollis glabris calyce triplo longioribus, tubo exserto.

Hab. in Andibus Chilensibus prope Mendoza *Gillies!* (*h. s. sp. comm. a cl. Gillies.*)

Media inter *S. Macraei* et *S. circinnata*, a priore differt caulibus brevibus rigidis, foliis latis, et corollis majoribus, a *S. circinnata* caule foliisque minus hispidis, foliis minus crenatis et corollæ tubo exserto.

p. 549. 53. *S. SERRULATA*.

Excl. Syn. *S. arvensis* γ *Poir.*

53*. *S. MARRUBIIFOLIA* (Viv. ! Fl. Cors. App. 2), herbacea, annua, suberecta, pilosa, foliis petiolatis lato-ovatis obtusis crenatis basi late cordatis, floralibus supremis sessilibus calyce brevioribus, verticillastris sexfloris, calycibus tubuloso-campanulatis pilosis, dentibus lanceolatis acutis supremis majoribus, corollis calyce duplo longioribus, tubo incluso calycem æquante, labiis subæqualibus.

S. arvensis γ *purpurea*. *Poir Dict.* 7. 373.

S. Poiretii. *Ten. Syll. Fl. Nap. App.* 538.

Hab. in Barbaria *Poiret* ! Corsica *Viviani* ! in Regno Neapolitano ad Posilippo rara *Tenore* ! *Reynier* ! (*h. s. sp. comm. a cl. De Candolle.*)

Habitus *S. arvensis*, sed calycibus latius campanulatis obliquis et corollis pluries majoribus abunde diversa. Folia mihi videntur nullo modo iis *Marrubii* similia.

55. *S. ARVENSIS.*

p. 550.

Dele var. β *purpuream* cum habitatione et descriptione. Est *S. marrubifolia* *Viv.*

73. *S. ARENARIA.*

p. 557.

S. congesta. *Durv. Enum. ! Pl. Archip. in Mem. Soc. Linn. Par. 324.*

The Barbary specimens appear to vary in the same manner as the Iberian ones.

74. *S. CONGESTA* deleatur, est *S. ARENARIA.*

84. *S. PAUCIFLORA* corrigetur in *S. AFFINIS.* (*Fres. ! Mus. p. 560. Senkenb. 91.*)

92. *S. INFLATA.*

p. 562.

Hab. in Persia inter Kermancha et Armadan *Olivier* !

Speciebus non satis notis addatur

103. *S. PILOSA* (*Nutt. Journ. Acad. Nat. Sc. Philad. 7. 48.*) p. 565.

Hab. in Americæ borealis vallibus montium Petrosorum *Nuttall.*

"*S. hirsuti-pilosa*, foliis subsessilibus oblongo-ovatis acutis serratis, calycibus pilosissimis dentibus elongatis, verticillis subsexfloris.

"*Humilis*, robusta. Folia subtus mollia. Flores majusculi purpurascens." — *Nutt. l. c.*

S. MARRUBIIFOLIA *Viv.* removetur et post *S. serrulatam* collocetur. p. 566.

SIDERITIS.

9. *S. PULLULANS.*

p. 575.

Videtur *S. libanoticæ* mera varietas.

21. *S. PUNGENS.*

p. 579.

Hab. prope Valentiam *L. Dufour* !

Folia pollicaria, inferiore interdum vix pungentia.

26. Loco *S. VIRGATA* (*Desf.*), lege *S. ANGUSTIFOLIA* (*Lam. Dict. p. 580. 2. 168.*)

Excl. Syn. *S. virgatæ* *Desf.*, ad *S. incanam* referendum.

28. *S. INCANA.*

p. 581.

S. virgata. *Desf. Fl. Atl. 2. 15. t. 125.*

28*. *S. SERICEA* (*Pers. Syn. 2. 118. et supra 582.*), suffruticosa, albo-lanata, foliis oblongo-linearibus spathulatisve obtusis integerrimis utrinque dense albo-lanatis, floralibus subpalmatifidis calyce brevioribus subspinosus, verticillastris distantibus, calycibus albo-lanatis.

Hab. in Hispania *Cavanilles* ! (*v. s. sp. in herb. DC.*)

Affinis *S. incanæ*, sed lana multo densior, folia floralia breviora, vix dentata.

April 1835.

5 D

29. *S. GLAUCA* (Cav. Ic. Rar. 2. 68. t. 185), suffruticosa, glabra, glaucescens, foliis oblongo-linearibus obtusis integerrimis, floralibus latis obtusis integerrimis vel subdentatis calyce subbrevioribus, verticillastris distantibus, calycibus glaberrimis glaucis dentibus obtusis.

Hab. in Hispaniæ montibus Orcellitanis *Cavanilles*. (v. s. in herb. DC.)

Species *S. incanæ* habitu affinis, sed, præter glabritiem et glaucescentiam, distinctissima est calycibus foliisque floralibus obtusis minime spinosis. Bracteæ sæpe adsunt calyce dimidio breviores.

p. 582. 32. *S. SERICEA* removetur, et post *S. incanam* collocetur.

p. 583. 34*. *S. PURPUREA* (H. F. Talbot! Fl. Corf. ined.), annua, molliter villosissima, viridis, foliis oblongo-ovatis, floralibus inferioribus conformibus dentatis, supremis ovato-lanceolatis acutis subintegerrimis, calycis pilosi dentibus aristato-mucronatis, supremo maximo ovato inferioribus lanceolato-subulatis, corollæ (purpurascens) galea oblonga.

Sideritis Cretica maxima *Ocimi Valentini* facie. *Tournef. sec H. F. Talb.*

Hab. in insulis Corfu et Zante *H. F. Talbot!* (h. s. sp. comm. a cl. Talbot.)

A *S. romana* differt caule foliis calycibusque pilis longis mollibus densius obsitis, et præsertim corollis purpureis nec flavescens, galea longiore multo angustiore. Calyx et inflorescentia *S. romanæ*.

35*. *S. APPROXIMATA* (Gasp. in Guss. Prod. Fl. Sic. Suppl. 191.)

Hab. in pascuis maritimis Siciliæ prope Seceiara *Gasparini* (*Gussone*.)

"*S. ebracteata*, dense villosa-hirsuta, foliis oblongis crenato-dentatis in petiolum attenuatis, floralibus calyces æquantibus, verticillis a basi approximatis in spicam elongatam, calycinis dentibus spinosis pungentibus, supremo ovato.

"Habitus *S. romanæ*, sed rami pauci erecti vel nulli, verticilli confertissimi, ut plurimum ab ipsa caulis basi in spicam 2-6-pollicarem dispositi; dentes calycini spinula breviori terminati, villositas major."—*Guss. l. c.*

p. 584. *Speciebus non satis notis addatur*

S. TOMENTOSA (Ucria Pl. ad Linn. Opus add. n. 15. ex Guss. Prod. Fl. Sic. Suppl. 192).

Hab. in Sicilia *Gussone*.

"*S. foliis ovato-lanceolatis dentatis incanis, floribus verticillato-spicatis, spicis foliosis*."—*Guss. l. c.*

MARRUBIUM.

p. 589. 12. *M. CANDIDISSIMUM*.

Excl. Syn. *M. supinum* Linn.

p. 590. 12*. *M. SUPINUM* (Linn. Spec. 816), ramis albo-lanatis, foliis ovato-rotundatis molliter villosis subviridibus vel subtus albo-lanatis crenatis bullato-rugosissimis, verticillastris multifloris, calycibus villosis, dentibus 5-10 subulatis rigidis rectis erectis vel demum patentibus, corollæ galea oblonga apice bifida.

Hab. (v. s. c.)

Species inter *M. candidissimum* et *M. vulgare* media. Flores prioris cum foliis posterioris. An hybrida hortensis?

16. *M. CUNEATUM*.

Hab. inter Bagdad et Kermanchah *Olivier*!

p. 591.

Speciebus non satis notis addentur

p. 592.

19. *M. PARVIFLORUM* (Fisch. et Meyer. Ind. Sem. Hort. Petrop. 1835. p. 33).

Hab. in montibus Talüsche *Fischer et Meyer*.

"*M. perenne*, foliis pubescentibus rugosis ovato-oblongis crenatis subtus cauleque erecto ramoso (basi) albo-tomentosis, bracteis setaceis calycem æquantibus, dentibus calycinis denis setaceis mucronatis rectis patentissimis tubo subbrevioribus, corolla calycem vix superante.

"*M. peregrinum*. *Meyer. Enum. Pl. Cauc. Casp. n.* 820.

"*M. peregrino* *L. Rehb.* dignoscitur indumento non sericeo et dentibus calycinis semper 10 corolla fere longioribus. Corolla alba, galea bifida, lobis conniventibus obtusis."—*Fisch. et Meyer. l. c.*

20. *M. PROPINQUUM* (Fisch. et Meyer l. c.)

Hab. in montibus Talüsche *Fischer et Meyer*.

"*M. perenne*, villosa-canescens, caule ramoso suberecto, foliis rugosis petiolatis grosse crenatis, inferioribus suborbiculatis, mediis obovatis, summis cuneatis, bracteis setaceis calyce subbrevioribus, dentibus calycinis villosis setaceis mucronatis patentissimis rectis tubo duplo brevioribus, tubo corollæ exserto, galea brevi.

"*M. leonuroidi* affinis, sed in nostro caulis ramosior villosissimus, folia cinerea rugosa, summa non oblonga, sed distincte cuneata; flores multo minores, violacei; calycis tubus brevior apice haud constrictus; galea abbreviata. A *M. plumoso*, neglectis aliis notis, primo intuitu dignoscitur tubo corollæ exserto."—*Fisch. et Meyer. l. c.*

BALLOTA.

3. *B. UNDULATA*.

p. 595.

Marrubium undulatum. *Fresen. ! Pl. Egypt. in Mus. Senkenb.* 92.

10. *B. SAXATILIS*.

p. 596.

Moluccella microphylla. *Delile ! Fragm. Fl. Arab. Petr.* 10. fig. 2.

The calyx is seldom so much dilated as is represented in the above quoted figure.

15*. *B. LIMBATA*, canescens, foliis oblongis integerrimis basi cuneatis, bracteis spinæformibus, calycis limbo inæqualiter membranaceo-dilatato sub-10-dentato.

Hab. in Indiæ Orientalis septentrionalis montibus: in glareosis lapidosis editioribus juxta Pindaden Khan *Jacquemont*! (*h. s. sp. e Mus. Par.*)

Frutex 2-pedalis, erectus, ramosissimus, ramis junioribus villosulis, demum glabratis. Folia $\frac{1}{2}$ -1-pollicaria, uninervia, utrinque canescentia, suprema vix calyces superantia basi latiora. Verticillastri axillares, distantes, sexflori. Bracteæ in axillis inferioribus sterilibus utrinque binæ rectæ, teretes, validiores quam in *B. spinosa*, in axillis floriferis 6-10, basi pubescentes et parum dilatatae, omnes vero spinæformes calyces subæquantes. Calycis tubus mollitur villosissimus, limbus horizontalis pentagonus, inferne valde dilatatus, angulis acuminatis, et dentibus 5 mi-

noribus inter angulos sæpius interjectis; faux villis longis albis clausa. Corolla in exemplare meo nondum aperta, sed videtur illæ *B. spinosæ* conformis.

The section *Acanthoprasium* is so very natural in habit, that one would be tempted to consider it as a distinct genus; yet I am unable to find any other characters than the spinescent bracts. It is also very closely allied to *Lasiocorys*, which is itself difficult to distinguish from *Ballota*.

LEUCAS.

p. 606. SECTIO II*. PHYSOLEUCAS.

*Calyx inflatus, ore contracto æquali. Verticillastri 6-10-flori.
Bracteæ minutæ.*

3*. *L. INFLATA*, fruticosa, foliis sessilibus orbiculatis basi subcordatis utrinque hirsutis viridibus, floralibus conformibus, verticillastri 6-10-floris subspicatis, bracteis minutis, calycibus ovato-inflatis striatis, dentibus denis brevibus erectis, fauce intus subnuda.

Hab. in Arabiæ deserto Suez *N. Bové!* (*h. s. sp. a cl. Bové lectam.*)

Species distinctissima. Exemplaria valde manca, sed characteres florum omnino hujus generis videntur.

p. 610. 16*. *L. LONGIFOLIA*, caule herbaceo erecto villosa, foliis linearibus subintegerrimis glabriusculis, verticillastri 6-10-floris, bracteis minutis, calycibus turbinato-tubulosis, ore æquali, dentibus brevissimis setaceis rectis.

Hab. in India Orientali septentrionali: ad vias circa Pounah *Jacquemont!* (*h. s. sp. e Mus. Par.*)

A *L. hyssopifolia* differt calycibus rectis; a *L. angustifolia* caule erecto, foliis angustioribus longioribus minus distantibus. Herba videtur annua, parum ramosa, semipedalis vel vix pedalis. Folia 2-3 pollices longa, utrinque viridia, rarissime dente uno alterove notata, sessilia, basi angustata; floralia omnino conformia. Verticillastri vix semipollicem distantes. Calyces basi attenuati glabriusculi, apice striati tenuiter pubescentes. Corolla *L. hyssopifoliæ*.

p. 611. 21. *L. MARRUBIODES*.

Hab. in ins. Ceylon *Walker!*

p. 617. 42. *L. LINIFOLIA*.

L. lavandulæfolia. Sm.! in *Rees Cycl.* v. 20.

LEONOTIS.

p. 619. 2. *L. PALLIDA*.

Phlomis africana. Pal. de Beauv.! *Fl. Ow. et Ben.* 2. 82. t. 111.

Hab. in regno Owariensi *Palisot de Beauvois!* in Arabiæ deserto *Sennaar Acerti!*

PHLOMIS.

p. 623. 1. *P. LYCHNITIS*.

Vix in Italia reperitur.

16. *P. VIRENS* (DC.!), et 17. *P. VISCOsa* (Poir!), sunt eadem p. 628. species. Nomen veterius Poiretii servetur.

ACHYROSPERMUM.

3. *A. FRUTICOSUM*.

p. 643.

Siphotoxis rosea. Bojer. ! MSS.

Flores splendentes rosei (*Bojer.*)

TEUCRIUM.

48*. *T. CANUM* (Fisch. et Meyer. Ind. Sem. Hort. Petrop. p. 681. 1835. 40).

Hab. in Asiæ Mediæ provincia transcaucasica Somchetia *Fischer et Meyer.*)

“*T. tomentoso-canum*, ima basi frutescens, multicaule, caulibus erectiusculis simplicibus, foliis oblongis dentatis basi cuneatis, floralibus integerrimis, verticillis sexfloris, pedicellis calycis longitudine, dentibus calycinis æqualibus acutis mucronulatis. Affinis *T. Chamædry* et *T. quadratulo*; a priore dignoscitur herba villa molli canescente, verticillis distantibus laxis et foliis floralibus integerrimis; a posteriore differt caulibus elongatis subsimplicibus, verticillis sexfloris, pedicellis longioribus, corollis villosis aliisque notis. Corolla purpurea.”—*Fisch. et Meyer l. c.*

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GENERUM, SPECIERUM, ET SYNONYMORUM.

Obs.—Nomina admissa litteris romanis, synonyma cursivis traduntur, nempe in utraque classi :

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Sectionalia majusculis,
Specialia vulgaribus.

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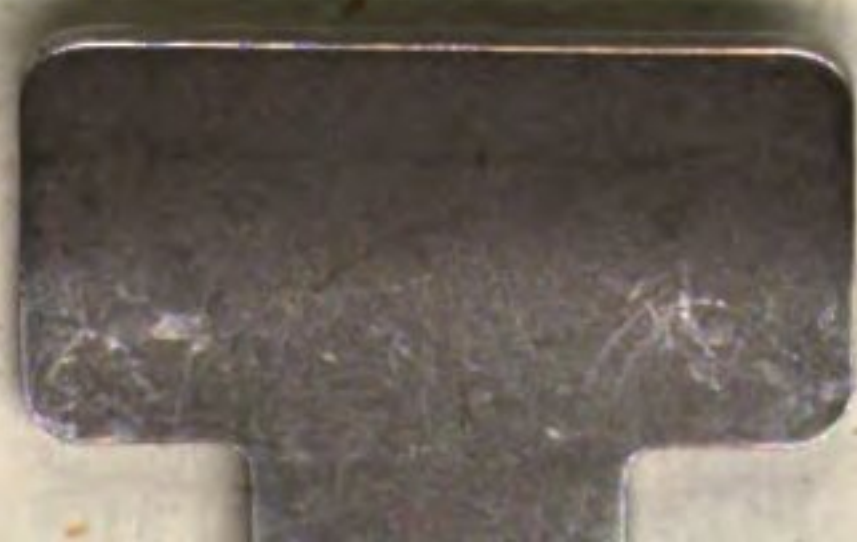
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THE END

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